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13. INSECTA

BY

THE COMMONWEALTH INSTITUTE OF ENTOMOLOGY

FOREWORD

THE attention of readers is directed to the fact that the systematic part of the Record is reserved only for information of purely taxonomic value. References to data on morphology, physiology, bionomics, ecology, distribution and other general problems must be looked for in the Subject Index, where they are arranged by orders under each heading. It is hoped that the classification of headings in the Subject Index will make the information more complete and readily available and render the Record of more value for entomologists working on general problems, without affecting its importance for taxonomists.

Entomological papers written entirely from an economic point of view are omitted, but abstracts of these will be found in the *Review of Applied Entomology*.

Very brief papers, usually those dealing with a single species, are noticed either in the Subject Index or in the systematic part, but do not appear in the list of titles.

The writers of systematic papers are requested to mark new synonyms with the words (*n. syn.*), as otherwise it is impossible to ensure that they will be correctly recorded.

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1.—Current entomological literature. Ent. News, Lancaster, Pa. **64** : 11–24, 47–55, 76–83, 102–111, 127–137, 149–161, 177–190, 209–223, 240–250, 267–272.

2.—Iconographia insectorum japonicorum. 2nd edn. revd. Tokyo, Hokuryukan 13, 1738 & 203 pp. 15 col. pls. 4,967 figs.

3.—Immigrant insect records for the year 1952. Proc. Hawaii. ent. Soc., Honolulu **15** : 261.

4.—**Abe,** N. The fate of a dragonfly in relation to *Drosera*. [In Japanese.] Ecol. Rev., Sendai **13** 1951 : 21–23, 1 fig. [Odon.]

5.—**Aboul-Nasr,** A. On the effect of carbon tetrachloride upon etherized *Drosophila virilis* (Diptera-Drosophilidae). Bull. Soc. Fouad 1er Ent., Cairo **37** : 121–126.

6.—**Acolat,** L. Les matériaux des nids de guêpes. Bull. Soc. Hist. nat. Doubs no. 55 (1951) : 39–43 ; also in Ann. sci. Univ. Besançon Zool. Phys. **8** fasc. 2 : 39–43. [Hym.]

7.—**Acree,** jr., F. The isolation of gyptol, the sex attractant of the female gypsy moth. J. econ. Ent., Menasha **46** : 313–315. [Lep.]

8.—**Acree,** jr., F. Studies on the chromatography of gyptyl azoate. J. econ. Ent., Menasha **46** : 900–902, 4 figs. [Lep.]

9.—**Aczél,** M. L. Revisión parcial del género americano *Paracantha* Coquillett (Diptera, Trypetidae). Acta zool. lilloana, Tucuman **10** 1952 : 199–240, 3 pls., 8 figs.

10.—**Aczél,** M. L. Further revision of the genus *Xanthaciura* Hendel (Trypetidae, Dipt.). Acta zool. lilloana, Tucuman **10** 1952 : 245–278, 2 pls., 7 figs.

11.—**Aczél,** M. L. Catálogo de la subfamilia americana Pterocallinae (Dipt., Acalypt. Otitidae). Acta zool. lilloana, Tucuman **11** 1951 : 397–433.

12.—**Aczél,** M. L. Morfología externa y división sistemática de las Tanypezidiformes con sinopsis de las especies argentinas de Tylidae (Micropezidae) y Neriidae (Dipt.). Acta zool. lilloana, Tucuman **11** 1951 : 483–589, 4 pls., 24 figs.

13.—**Aczél,** M. L. Suplemento al catálogo de la familia Trypetidae de la región neotropical. Acta zool. lilloana, Tucuman **12** (1951) 1952 : 117–133. [Dipt.]

14.—**Aczél,** M. L. Géneros y especies neotropicales de la tribus Trypetini. II. Dos géneros y una especie nuevos. Acta zool. lilloana, Tucuman **12** (1951) 1952 : 253–278, 1 pl., 34 figs. [Dipt.]

15.—**Aczél,** M. L. The genus *Trupanea* Schrank in the Neotropical region (Dipt. Tephritidae). I. The *diespasmena*-group. Dusenia, Curitiba **4** : 273–286, 1 pl., 2 figs.

16.—**Adachi,** M. S. Preliminary studies in Hawaiian Dolichopodidae (Diptera). Part I. New species of *Campsicnemus* Haliday. Proc. Hawaii. ent. Soc., Honolulu **15** : 117–122, 1 pl.

17.—**Adachi,** M. S. & **Fullaway,** D. T. Two new Diaspidid scales on *Araucaria*. Proc. Hawaii. ent. Soc., Honolulu **15** : 87–91, 2 pls. [Hem.]

Adam, J.-P. *see* Rageau & Adam ; Rageau, Adam & Rivola.

18.—**Adamczewski,** S. Supplements and rectifications to the Lepidopterological fauna of Poland. II. [In Polish with English summary.] Bull. ent. Pologne, Wrocław **20** (1950) 1951 : 75–93.

Aé, A. S. *see* Taku & Aé.

19.—**Aellen,** V. La faune de la grotte de Moron (Jura suisse). Bull. Soc. neuchâtel. Sci. nat. (3) **75** 1952 : 139–151, 2 pls. 2 figs.

20.—**Aerts,** W. Hymenopteren, die an der Fichte (*Picea excelsa* Link) beobachtet wurden. Nachr. naturw. Mus. Aschaffenburg no. 40 : 1–41.

21.—Agarwala, S. B. D. A comparative study of the ovipositor in Acrididae—I, II. Indian J. Ent., New Delhi **13** (1951) 1952 : 147–181, 35 figs. ; **15** : 53–69, 20 figs. [Orth.]

22.—Agenjo, R. Un *Crambus* F., inédito y otro nuevo para España, descubiertos en los Picos de Europa. *C. pallidellus* Dup., 1836 (=*C. cuencalis* Hmps., 1900), nov. syn. (Lep. Cramb.). Eos, Madrid **28** 1952 : 315–322, 1 pl.

23.—Agenjo, R. Dos nuevas *Pseudocopicucullia* Dumont, de Ifni (Lep., Agrot.). Eos, Madrid **28** 1952 : 367–375, 1 pl.

24.—Agenjo, R. *Allophyes alfaroi* Ag., en Cataluña (Lep. Phalaen.). Eos, Madrid **29** : 173–175.

25.—Agenjo, R. Geometridae españoles de la colección D. Hospital de Barcelona (Lep. Geom.). Eos, Madrid **29** : 289–328, 2 pls.

26.—Agrawal, N. S. Life-history of *Phenacoccus insolitus*, Green (The Brinjal mealy bug). Curr. Sci., Bangalore **22** : 214. [Hem.]

27.—Agrell, I. Mobilization of metabolic energy during insect metamorphosis. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 73–77, 5 figs.

28.—Aguiar Guimarães, J. de. Sôbre um novo Psyllidae da Goiabeira. Agronomia, Rio de Janeiro **12** no. 2 : 39–43, 4 figs. [Hem.]

29.—d'Aguilar, J. Contribution à l'étude des Diptères (9e note). La larve de *Calamoncosis minima* Strobl (Dipt. Chloropidae). Bull. Soc. ent. Fr., Paris **58** : 72–76, 1 fig.

30.—d'Aguilar, J., **Legay,** J.-M. & **Vago,** C. Parasitisme de *Ctenophorocera pavida* Meig. sur *Bombyx mori* L. (Dipt. Larvaevoridae). Bull. Soc. ent. France, Paris **58** : 23–25.

31.—Ahmad, M. New termites and a hitherto unknown caste from Ceylon. Spolia zeylan., Colombo **27** : 37–41, 4 figs. [Isopt.]

32.—Aino, S. Effects of supersonic waves on mosquito larvae. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1950 : 41–49. [Dipt.]

33.—Aizawa, K. On the haemolysins in the silkworm, *Bombyx mori* L. I, II. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **18** : 17–26, 4 figs., 111–116, 2 figs. [Lep.]

Alam *see* Mashhood Alam.

34.—Alberti, B. *Pyrgus fritillarius* Poda und *fritillum* Schiff. (Lep. Hesperiidae). Ent. Z., Frankfurt a. M. **63** : 49–52.

35.—Alberti, B. Ueber *Colias hyale* und *erate* Esp. (Lep. Pieridae). Ent. Z., Frankfurt a. M. **63** : 65–67.

36.—Alberti, B. Die Deutung der Urabbildungen von *Pyrgus carthami* Hübner (Lep. Hesperiidae). NachrBl. bayer. Ent., Munich **2** : 37–40. [Lep.]

37.—Alberti, B. Eine Lepidopteren-Ausbeute aus Südost-Polen. Z. Lepid., Krefeld **3** : 51–58.

38.—Albrecht, F. O. The anatomy of the migratory locust. University of London, Athlone Press 118 pp. 141 figs. [Orth.]

39.—Albrecht, F. O. The breeding of the red locust in captivity. Bull. ent. Res., London **44** : 1–4. [Orth.]

40.—Albrecht, M.-L. Die Plane und andere Flämingbäche. Z. Fisch., Berlin (N.F.) **1** : 389–476, 27 figs.

41.—Albuquerque, D. de O. Sôbre alguns gêneros metálicos de Phaoninae neotropicais e descrição de uma *Xenomorellia* nova (Diptera : Muscidae). Bol. Mus. nac. Rio de Janeiro (N.S.) Zool. no. 116 1952 : 1–21, 3 pls.

42.—Albuquerque, D. de O. Sôbre um gênero e uma espécie nova de Thyreophoridae do Brasil (Diptera, Haplostomata). Rev. brasil. Biol., Rio de Janeiro **13** : 109–112, 5 figs.

43.—Albuquerque, D. de O. Fauna do Distrito federal. IV. Nova espécie baseada em *Philornis pici* (Blanchard, 1896) nec Macquart (Diptera, Muscidae). Rev. brasil. Biol., Rio de Janeiro **13** : 141–144, 8 figs.

Alcantara, C. *see* Polonovski, Alcantara & Busnel.

44.—Alexander, C. P. New or little-known Tipuloidea (Diptera) from Argentina. Part I. Acta zool. lilloana, Tucuman **10** 1952 : 75–94, 9 figs.

45.—Alexander, C. P. New or insufficiently-known craneflies from Chile (Family Tipulidae, Order Diptera). Part V. Agric. tecn., Chile **13** : 5–23, 20 figs.

46.—Alexander, C. P. New or little-known Tipulidae (Diptera). XCIV–XCVI. Ann. Mag. nat. Hist., London (12) **6** : 174–192, 739–757, 898–914.

47.—Alexander, C. P. Undescribed species of Nematocerous Diptera. Parts II, III. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 41–49, 97–103.

48.—Alexander, C. P. Records and descriptions of Neotropical craneflies (Tipulidae, Diptera), XXVII. J. New York ent. Soc. **61** : 147–157.

49.—Alexander, C. P. New or little-known crane-flies from Madagascar. Diptera-Tipuloidea, Part II. Mém. Inst. sci. Madagascar, Tananarive (E) **3** : 279–311, 30 figs.

50.—Alexander, C. P. Records and descriptions of Japanese Tipulidae (Diptera), parts I, II. Philipp. J. Sci., Manila **82** : 21–75, 2 pls. 3 figs., 141–179, 4 pls.

51.—Alexander, C. P. The Oriental Tipulidae in the collection of the Indian Museum. Part III. Rec. Indian Mus., Delhi **50** (1952) : 321–357, 15 figs.

52.—Alexander, C. P. Notes on the Tipulidae of Ecuador (Order Diptera). Parts I–III. Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 1 : 5–13, no. 2 : 6–14, 1 pl., no. 3 : 29–39, 1 pl.

53.—Alexander, C. P. The insect fauna of Mt. Ishizuchi and Omogo Valley, Iyo, Japan. The Tipulidae (Diptera). Trans. Shikoku ent. Soc. **3** : 71–83.

Alfieri, A. *see* Priesner & Alfieri.

54.—[Alin, V. N.] *Rosalia coelestis* Sem. in the beetle fauna of Manchuria (Coleoptera, Cerambycidae). [In Russian.] Izvest. Kharbin. kraev. Muz., Harbin no. 1 1945 : 30–31, 3 figs.

55.—Alin, V. N. On the biology of the butterflies of Manchuria, *Papilio xuthus* L. (Lepidoptera, Papilionidae). Proc. Harbin Soc. nat. Hist. no. 7 1947 : 5–7, 3 pls.

56.—Alin, V. N. Insects of curative properties used in Chinese medicine. Proc. Harbin Soc. nat. Hist. no. 10 : 1–12, 1 pl.

57.—[Alin, V. N.] *Epicopeia mencia* Moore—its biology and new forms. [In Russian.] Sci. Works Przevalsky Res. Ass. Memb., Harbin 1942 : 1–4, 3 pls. [Lep.]

58.—Allan, P. B. M. Haworth and his prodromus. Ent. Rec., Bishop's Stortford, Herts **65** : 82–84, 112–115.

59.—Allard, H. A. & **Leonard,** E. C. Animal life of the Cabin Mountain-Stony River dam area. Proc. W. Va Acad. Sci., Morgantown **24** 1952 : 31–35.

60.—Allen, A. A. Two remarkable rediscoveries in the British Coleoptera. Ent. mon. Mag., London **89** : 148–149.

Altena *see* Regteren Altena.

61.—Altorfer, N. Influence du chromosome Y sur l'expression de la mutation cubitus interruptus chez *Drosophila melanogaster*. Ann. Soc. zool. Belg., Louvain **82** (1951) 1952 : 447–462. [Dipt.]

62.—Altorfer, N. Teneur en acide ribonucléique de différents génotypes chez *Drosophila melanogaster*. Experientia, Basle **9** : 463–465. [Dipt.]

63.—Amaral, S. F. do & **Navajas,** E. Fauna entomológica do arroz e sua importância econômica no Estado de São Paulo. Rev. Agric., São Paulo **28** : 107–124, 209–210.

Ames, C. T. *see* Ryckman & Ames.

64.—Amsel, H. G. Neue Kleinschmetterlinge aus Nordwest-Africa. Bull. Inst. franç. Afr. noire, Dakar **15** : 1441–1460, 6 pls. [Lep.]

65.—Amsel, H. G. Ueber einige von Ragonot und Dumont beschriebene palaearktische Microlepidopteren des Pariser Museums. Rev. franç. Ent., Paris **20**: 223–230, 11 figs.

66.—Amsel, H. G. Zur Nomenklatur von *Lita amaurella* Rbl. (Lepidoptera: Gelechiidae). Z. wien. ent. Ges., Vienna **38**: 274–275.

Amsel, H. G. *see* Hartig & Amsel.

67.—Ananthakrishnan, T. N. Notes on some Thysanoptera from South India. Indian J. Ent., New Delhi **14** (1952): 197–201, 5 figs.

68.—Ananthakrishnan, T. N. A note on the male genital armature of some Terebrantia (Thysanoptera). Indian J. Ent., New Delhi **15**: 247–250, 6 figs.

69.—Ananthakrishnan. T. N. A new species of thrips, *Thilakothrips fimbriata* sp. n. (Thysanoptera-Tubulifera) from South India. Proc. R. ent. Soc. London (B) **22**: 33–34, 1 fig.

Ananthakrishnan, T. N. *see* Margabandhu & Ananthakrishnan.

70.—Ananthanarayanan, K. P. & **Venugopal,** S. Notes on the bionomics and morphology of *Hyposidra successaria* Wlk., a Geometrid pest on Daincha (*Sesbania aculeata*) in Coimbatore. J. Bombay nat. Hist. Soc. **51**: 789–793, 6 figs. [Lep.]

71.—Ander, K. Catalogus insectorum sueciae. Additamenta ad partes I–X. IV. Odonata. V. Orthoptera (Dermaptera, Blattoidea, Saltatoria). Opusc. ent., Lund **18** 87–88.

Anderson, J. R. *see* Fredeen, Spinks and others.

72.—Anderson, N. L. & **Wright,** J. C. Grasshopper investigations on Montana range lands. Bull. Montana agric. Exp. Sta., Bozeman no. 486 1952: 1–46, 6 fidg. tables. [Orth.]

73.—Ando, H. Studies on the pleuropodia of Odonata. Sci. Rep. Tokyo Bunrika Daigaku **7**: 167–181, 2 pls.

74.—Andrade, N. F. de. *Miscophus* of Cyprus (Hymenoptera, Sphecidae). Mem. Estud. Mus. zool. Univ. Coimbra no. 216: 1–40, 25 figs.

75.—Andrade, R. M. de. Observações sôbre a hidrobiologia do *Anopheles tarsimaculatus*: II. Relação com alguns elementos físicos e químicos da água dos criadouros. Rev. brasil. Malariol., Rio de Janeiro **5**: 145–156. [Dipt.]

76.—Andreae, H. On South African Coccinellidae, species incertae. Ann. S. Afr. Mus., Cape Town **41**: 41–43. [Col.]

77.—Andreae, H. The genus *Anobium* Thunb. Ann. S. Afr. Mus., Cape Town **41**: 44–45. [Col.]

Angalet, G. W. *see* Narayanan, Angalet, Subba Rao & D'Souza.

78.—Angel, F. M. Notes on the Lepidoptera of the Northern Territory of Australia, with description of new species. Trans. roy. Soc. S. Aust., Adelaide **74** 1951: 6–14, 1 pl.

79.—Angelier, E. Recherches écologiques et biogéographiques sur la faune des sables submergés. Arch. Zool. exp. gén., Paris **90**: 37–161, 36 figs.

Annaji Rao, A. V. *see* Venkat Rao & Annaji Rao.

80.—Ansari, M. Atiqur Rahman. Studies on Phthirapteran parasites on mammals from the Panjab. Indian J. Ent., New Delhi **13** (1951) 1952: 117–145, 52 figs.

81.—Antoine, M. Présentation de coléoptères troglobies. C.R. Soc. Sci. nat. Maroc, Rabat **1953**: 58–59.

82.—Antoine, M. Notes d'entomologie marocaine. Rev. franç. Ent., Paris **20**: 202–223, 4 figs. [Col.]

83.—Antunes, P. C. A. Nota sôbre o gênero *Haemagogus*, Williston. Rev. Ass. paul. Med., São Paulo **14** 1939: 106. [Dipt.] [Not seen.]

84.—Appanna, M. *Microbracon hebetor* Say:—Possibilities of its mass-production and large-scale utilization against insect pests of field crops. Indian J. Ent., New Delhi **14** (1952): 263–267, 2 figs. [Hym.]

85.—Aragão, M. B. Utilização de mosquitos radioativos na avaliação do raio de vôo. Rev. brasil. Malariol., Rio de Janeiro **5**: 137–143, 4 figs. [Dipt.]

86.—Aragão, M. B., **Frota-Pessôa,** E. & **Margem,** N. A new radioactive method for marking mosquitos. Notas Fis. Cent. brasil. Pesquisas fis., Rio de Janeiro no. 4 1952: 1–5, 2 figs. [Portuguese version in Rev. brasil. Malariol. **5**: 69–73, 2 figs.]

Arbuthnot, K. D. *see* Blickenstaff, Arbuthnot & Harris.

87.—Ardö, P. Likflugan, *Conicera tibialis* Schmitz, i Sverige (Dipt. Phoridae). Opusc. ent., Lund **18**: 33–36, 1 fig.

88.—Armstrong, E. A. Nidicoles and parasites of the wren. Irish Nat. J., Belfast **11**: 57–64.

89.—Armstrong, J. W. T. On Australian Helodidae (Coleoptera). I. Description of new genera and species. Proc. Linn. Soc. N.S.W., Sydney **78**: 19–32, 13 figs.

Arnason, R. P. *see* Fredeen, Spinks and others.

90.—Arnett, jr., R. H. The Oedemerid beetles of the Bimini Island group, Bahama Islands, British West Indies. Amer. Mus. Novit., New York no. 1646: 1–13, 23 figs. [Col.]

91.—Arnett, jr., R. H. Notes on the genus *Lacon* (Elateridae). Coleopt. Bull., Washington, D.C. **7**: 5–7.

92.—Arnett, jr., R. H. Beetles of the Oedemerid genus *Vasaces* Champion. Proc. U.S. nat. Mus., Washington **103** no. 3317: 87–94, 14 figs. [Col.]

93.—Arnett, jr., R. H. A review of the beetle family Cephaloidae. Proc. U.S. nat. Mus., Washington **103** no. 3321: 155–161, 12 figs. [Col.]

94.—[Arnol'di, K. V.] Concerning the forest-steppe sources of forest insects and the character of their penetration into the steppe during afforestation. [In Russian.] Zool. Zhurn., Moscow **32**: 175–194.

95.—[Arnol'di, L. V.] General survey of beetles of the middle and lower valley of the river Ural, their ecological distribution and economic importance. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952: 44–65.

96.—Arora, G. L. The external morphology of *Diprion pini* (L.) (Symphyta-Hymenoptera). Res. Bull. E. Panjab Univ., Hoshiarpur Zool. no. 25: 1–21, 5 pls.

97.—Arthur, A. P. & **Coppel,** H. C. Studies on Dipterous parasites of the spruce budworm, *Choristoneura fumiferana* (Clem.) (Lepidoptera: Tortricidae). I. *Sarcophaga aldrichi* Park. (Diptera: Sarcophagidae). Canad. J. Zool., Ottawa **31**: 374–391, 21 figs.

98.—Aruga, H., **Yoshitake,** N. & **Nagashima,** E. Studies on the fluorescent compounds in some wild silkworms. I. On the fluorescent compounds in eggs of some wild silkworms. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **18**: 117–124. [Lep.]

Aruga, H. *see* Hama, Maki & Aruga.

99.—Arvy, L. Données histologiques sur la leucopoièse chez quelques Lépidoptères. Bull. Soc. zool. France, Paris **78**: 45–59, 1 pl. 4 figs.

100.—Arvy, L. Contribution à l'étude de la leucopoièse chez quelques Diptères. Bull. Soc. zool. France, Paris **78**: 158–171, 5 figs.

101.—Arvy, L., **Bounhiol,** J. J. & **Gabe,** M. Déroulement de la neurosécrétion protocérébrale chez *Bombyx mori* L. au cours du développement post-embryonnaire. C.R. Acad. Sci., Paris **236**: 627–629. [Lep.]

102.—Arvy, L. & **Gabe,** M. Données histophysiologiques sur les formations endocrines rétro-cérébrales de quelques Odonates. Ann. Sci. nat., Paris Zool. (11) **14** (1952): 345–374, 3 pls. 9 figs.

103.—Arvy, L. & **Gabe,** M. Données histophysiologiques sur les glandes endocrines céphaliques de *Brachyptera risi* Morton (Plécoptère). Arch. Zool. exp. gén., Paris **90** Notes et Rev.: 105–122, 6 figs.

104.—**Arvy,** L. & **Gabe,** M. Données histophysiologiques sur la neurosécrétion chez quelques Ephéméroptères. Cellule, Louvain **55** : 201–222, 2 pls.

105.—**Arvy,** L. & **Gabe,** M. Particularités histophysiologiques des glandes endocrines céphaliques chez *Tenebrio molitor* L. C.R. Acad. Sci., Paris **237** : 844–846. [Col.]

106.—**Arvy,** L. & **Gabe,** M. Données histophysiologiques sur la neurosécrétion chez les Paléoptères (Ephéméroptères et Odonates). Z. Zellforsch., Berlin **38** : 591–610, 15 figs.

Arvy, L. *see* Bounhiol, Gabe & Arvy.

107.—**Asahina,** S. Notulae odonatorum japonicorum, II–IV. [In Japanese with German summary.] Zool. Mag., Tokyo **51** 1939 : 141–150, 10 figs., 295–301, 13 figs., 553–560, 16 figs.

108.—**Asahina,** S. & **Hasegawa,** H. Insects of the Oze districts, I. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951 : 184–189.

Asahina, S. *see* Yokota & Asahina.

109.—**Ash,** J. Notes on the puparial stage of some Hippoboscidae (Dipt.). Ent. mon. Mag., London **89** : 206–207.

Ashall, C. *see* Rainey & Ashall.

110.—**d'Assis-Fonseca,** E. C. M. The pinning and setting of flies. Ent. Rec., Bishop's Storford, Herts **65** : 264–266. [Dipt.]

111.—**d'Assis-Fonseca,** E. C. M. An important character in the identification of the females of *Sarcophaga* species (Dipt., Calliphoridae). J. Soc. Brit. Ent., Bournemouth **4** : 167–168.

d'Assis-Fonseca, E. C. M. *see* Ringdahl.

Atiqur Rahman Ansari *see* Ansari.

112.—**Atkinson,** D. J. New species of *Plocaederus* (Col., Cerambycidae) from Africa. Ann. Mag. nat. Hist., London (12) **6** : 223–227.

113.—**Aubert,** J. Les Plécoptères de la collection A. Costa (Musée zoologique de Naples). Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 1 : 1–6, 1 pl. 8 figs.

114.—**Aubert,** J. Contribution à l'étude des Plécoptères et des Ephéméroptères de la Calabre (Italie méridionale). Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 2 : 1–35, 57 figs.

115.—**Aubert,** J. Plécoptères européens nouveaux. Mitt. schweiz. ent. Ges., Berne **26** : 72–76.

116.—**Aubert,** J.-F. Les Lépidoptères alpins soi-disant capturés dans le Jura. Rev. franç. Lépid., Paris **14** : 31–34.

117.—**Aubert,** J.-F. Macrolépidoptères peu connus de la faune suisse. Nouvelles observations concernant *Procus versicolor* Bkh. Rev. franç. Lépid., Paris **14** : 70–76, 4 figs.

118.—**Aubert,** J. F. & **Boursin,** C. Les Phalénides (Noctuelles) du Jura. Bull. mens. Soc. linn. Lyon **22** : 115–126. [Lep.]

119.—**Auclair,** J. L. Amino acids in insects. Canad. Ent., Ottawa **85** : 63–68.

120.—**Auclair,** J. L. & **Dubreuil,** R. Etude sur les acides aminés libres de l'hémolymphe des insectes par la méthode de chromatographie sur papier filtre. Canad. J. Zool., Ottawa **31** : 30–41.

121.—**Aue,** A. U. E. Beobachtungen an Mordraupen. Nachr. naturw. Mus. Aschaffenburg no. 41 : 87–90. [Lep.]

122.—**Auerbach,** C. & **Moser,** H. An analysis of the mutagenic action of formaldehyde-food. I, II. Z. indukt. Abstamm.— u. VererbLehre, Berlin **85** : 479–504, 8 figs., 547–563.

Auerbach, S. *see* Park, Auerbach & Wilson.

123.—**Auersch,** O. Natürliche Feinde des Kartoffelkäfers (*Leptinotarsa decemlineata* Say) auf Grund eigener Beobachtungen. Wiss. Z. Univ. Halle **2** : 369–375, 7 figs. [Col.]

124.—Augustson, G. F. The flea genus *Meringis* in California with the description of *M. californicus* n. sp., and *M. deserti* n. sp. (Siphonaptera). Bull. S. Calif. Acad. Sci., Los Angeles **52**: 110–118, 2 figs.

125.—Augustson, G. F. Some new fleas (Siphonaptera) of western United States. Bull. S. Calif. Acad. Sci., Los Angeles **52**: 119–126, 3 figs.

126.—Augustson, G. F. & **Wood,** S. F. Notes on California mammal ectoparasites from the Sierra Nevada foothills of Madera county. Bull. S. Calif. Acad. Sci., Los Angeles **52**: 48–56.

127.—Autrum, H. Neue Untersuchungen ueber das Sehen der Insekten insbesondere der Bienen. Ann. Sci. nat., Paris Zool. (11) **14** (1952): 439–447, 5 figs. [Hym.]

128.—Autrum, H. Erregungsvorgänge und Leistungen des Insektenauges. Verh. dtsch. zool. Ges., Leipzig **1951** 1952: 133–143, 11 figs.

129.—Autrum, H. & **Stumpf,** H. Elektrophysiologische Untersuchungen über das Farbsehen von *Calliphora*. Z. vergl. Physiol., Berlin **35**: 71–104, 21 figs. [Dipt.]

130.—Avidov, Z. Biological and ecological studies on the codling moth (*Carpocapsa pomonella* L.) in Israel. Ktavim, Rehovot **2-3** 1952: 43–51. [Lep.]

131.—Ayyappa, P. K. & **Cheema,** P. S. An ectoparasite on the larvae of *Anthrenus vorax* Waterhouse. Proc. Indian Acad. Sci., Bangalore (B) **36** 1952: 215–222, 1 pl. 2 figs. [Hym., Col.]

132.—Azab, A. K. The effect of various types of food upon the rate of development of the larvae of *Stegobium paniceum* L. (Coleoptera: Anobiidae). Bull. Soc. Fouad ler Ent., Cairo **37**: 127–147, 2 figs.

133.—Azab, A. K. The influence of yeast upon the rate of development of the larvae of *Stegobium paniceum* L. (Coleoptera: Anobiidae). Bull. Soc. Fouad ler Ent., Cairo **37**: 149–165, 1 fig.

Babers, F. H. *see* Pratt & Babers.

134.—Baccetti, B. Contributo alla conoscenza della ortotterofauna della Toscana. Ortotteri dell'Isola d'Elba. Redia, Florence **37** 1952: 333–343.

135.—Bachmann, F. *Quadraspidiotus schneideri* n. sp. (Homopt. Diaspidoid.), eine neue Schildlausart. Mitt. schweiz. ent. Ges., Berne **25** 1952: 357.

136.—Bachmann, F. Beitrag zur Kenntnis der jugoslavischen Schildlausfauna. Trav. Acad. serbe Sci., Belgrade **31** Inst. Ecol. Biogéogr. no. 4: 175–184, 1 fig. [Hem.]

137.—Bachmann, F. Untersuchungen an den gelben Obstbaumschildläusen *Quadraspidiotus piri* Licht. und *Quadraspidiotus schneideri* n. sp. Z. angew. Ent., Berlin **34**: 357–404, 17 figs. [Hem.]

138.—Bachmayer, F. Fossile Libellenlarven aus miozänen Süsswasserablagerungen. S.B. Akad. Wiss. Wien Abt. I **161** 1952: 135–140, 1 pl. [Fossil Odon.]

Bacon, R. *see* Jellison, Locker & Bacon.

139.—Badcock, R. M. Observation of oviposition under water of the aerial insect *Hydropsyche angustipennis* (Curtis) (Trichoptera). Hydrobiologia, The Hague **5**: 222–225.

140.—Baer, J. G. Notes de faunistique éburnéenne III. Acta trop., Basle **10**: 73–79, 15 figs. [Dipt.]

141.—Baeta Neves, B. Os Psocoptera da entomofauna florestal portuguesa. Bol. Soc. portug. Ciênc. nat., Lisbon (2) **4** 1952: 9–11.

142.—Bagwell-Purefoy, E. An unpublished account of experiments carried out at East Farleigh, Kent, in 1915 and subsequent years on the life history of *Maculinea arion*, the Large Blue butterfly. Proc. R. ent. Soc. London (A) **28**: 160–162. [Lep.]

143.—Baisas, F. E. & **Feliciano,** P. Philippine zoological expedition 1946-1947. Notes on Philippine mosquitoes, XIII. Four new species of *Zeugnomyia* and *Topomyia*. Fieldiana Zool., Chicago **33**: 161–179, 5 figs. [Dipt.]

144.—Bajári, N. E. Le catalogue des familles Sapygidae, Scoliidae et Tiphiidae de la Hongrie et des régions voisines (Hym.). [In Magyar with French summary.] Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4**: 123–130.

Baker, G. J. *see* Campau, Baker & Morrison.

Baker, J. H. *see* Fender & Baker.

145.—Baker, W. K. V-type position effects of a gene in *Drosophila virilis* normally located in heterochromatin. Genetics, Lancaster, Pa. **38**: 328–344, 1 pl. 2 figs. [Dipt.]

146.—Balachowsky, A. S. Les cochenilles de France, d'Europe, du Nord de l'Afrique et du bassin méditerranéen. VII. Monographie des Coccoïdea Diaspidinae—IV. Odonaspidini-Parlatorini. Actual. sci. indust., Paris no. 1202: 1–207, 46 pls. [Hem.]

147.—Balachowsky, A. S. Sur un *Hemiberlesia* Ckll. nouveau des montagnes du Caméroun (Homoptera: Coccoidea). Beitr. Ent., Berlin **3**: 111–115, 1 pl.

148.—Balachowsky, A. S. Sur un *Dysmicoccus* nouveau (Hom. Coccoïdea-Pseudococcini) nuisible au *Casuarina* en A.O.F. Bull. Inst. franç. Afr. noire, Dakar **15**: 1046–1050, 14 figs.

149.—Balachowsky, A. S. Deux *Pseudaonidia* Ckll. (Hom. Coccoidea-Diaspidinae) nouveaux du massif du Béna (Moyenne Guinée) A.O.F. Bull. Inst. franç. Afr. noire, Dakar **15**: 1512–1522, 4 pls.

150.—Balachowsky, A. S. Sur un *Lindingaspis* MacGill. nouveau du massif du Béna (Moyenne-Guinée) (Hom. Coccoïdea). Bull. Soc. ent. Fr., Paris **58**: 109–112, 3 figs.

151.—Balachowsky, A. S. Sur un nouveau genre de Pseudococcini (Hom. Coccoidea) de la région d'Alger. Bull. Soc. Hist. nat. Afr. N., Algiers **43** 1952: 177–180, 10 figs.

152.—Balachowsky, A. I.—Sur un *Centrococcus* (Coccoidea-Pseudococcini) nouveau du Maroc oriental. Bull. Soc. Sci. nat. Maroc, Rabat **31** (1951): 277–281, 1 fig. [Hem.]

153.—Balachowsky, A. II.—Remarques sur les Pseudococcini spinuleux. Bull. Soc. Sci. nat. Maroc, Rabat **31** (1951): 281–285. [Hem.]

154.—Balachowsky, A. S. Sur un *Heliococcus* Sulc (Coccoidea-Pseudococcini) nouveau, vivant à 3,600 mètres d'altitude dans les Alpes du Dauphiné et du Tyrol. Mitt. schweiz. ent. Ges., Berne **26**: 236–240, 10 figs. [Hem.]

155.—Balachowsky, A. S. Sur deux Pseudococcini Hom. (Coccoidea) nouveaux appartenant à la faune alpine d'altitude. Mitt. schweiz. ent. Ges., Berne **26**: 295–300, 2 pls. [Hem.]

156.—Balachowsky, A. S. Sur le statut des genres *Puto* Signoret, *Ceroputo* Sulc et *Macrocerococcus* Leonardi. Mitt. schweiz. ent. Ges., Berne **26**: 301–304. [Hem.]

157.—Balachowsky, A. S. Sur un *Melanaspis* Ckll. nouveau vivant sur *Parinarium* en Moyenne Guinée (Coccoidea Diaspidinae). Rev. franç. Ent., Paris **20**: 146–149, 4 figs. [Hem.]

158.—Balachowsky, A. S. Sur un nouveau genre de Parlatorini (Hom.-Coccoidea) originaire du Massif du Béna (Moyenne-Guinée) (A.O.F.). Rev. Path. vég., Paris **32**: 19–23, 1 pl.

159.—Balachowsky, A. S. Sur une cinquième espèce d'*Aonidiella* Berl. et Leon. (Hom. Coccoidea) nouvelle du Congo belge. Rev. Zool. Bot. afr., Tervuren **47**: 77–80, 4 figs.

160.—Balachowsky, A. S. & **Kaussari,** M. Sur un *Melanaspis* Ckll. nouveau (Coccoidea-Diaspidinae) vivant sur chêne en Iran. Rev. Path. vég., Paris **32**: 28–31, 1 pl.

Balachowsky, A. S. *see* Kaussari & Balachowsky.

161.—Balát, F. Zur Kenntnis der Arten der Gattung *Ricinus* de Geer 1778 (Mallophaga). [In Czech with German summary.] Biol. Sborn. slovensk. Akad., Bratislava **7** 1952 no. 3–4: 155–170, 11 figs.

162.—Balát, F. Mallophagen avium moraviae et slovakiae. [In Czech with French summary.] Publ. Fac. Sci. Univ. Masaryk, Brno no. 348: 169–176.

163.—Balát, F. Všenky rodu *Actornithophilus* Ferris 1916 z bahňáků. [In Czech with French summary.] Zool. ent. Listy, Brno **2**: 93–106, 6 figs. [Malloph.]

164.—Balazuc, J. & **Donnot,** H. Nouvelle anomalie sexuelle chez un longicorne (Col. Cerambycidae). Bull. Soc. ent. Fr., Paris **58**: 95–96, 1 fig.

165.—Balazuc, J. & **Tempère,** G. Notes de tératologie (III). Symmélie labiale chez un Carabique: *Stomis pumicatus* L. Rev. franç. Ent., Paris **20**: 54–55, 1 fig. [Col.]

166.—Balcells R., E. El ciclo biológico de *Dicranura vinula* L. y *Smerinthus populi* L., en el Vallés oriental (Barcelona). Publ. Inst. Biol. apl., Barcelona **8** 1951: 189–207, 1 pl. 9 figs. [Lep.]

167.—Balcells R., E. Estudio biológico de *Haltica lythri* subespecie *ampelophaga*, Guérin-Méneville (Col. Halticinae). Publ. Inst. Biol. apl., Barcelona **14**: 5–8, 1 fidg. pl.

168.—Balduf, W. V. Problems in the bionomics of the squash bug, *Anasa tristis* (DeGeer) (Coreidae, Hemiptera). Trans. Illinois Acad. Sci., Springfield **43** 1950: 244–248.

169.—Balfour-Browne, F. Handbooks for the identification of British insects. Coleoptera. Hydradephaga. London, R. ent. Soc. **4** pt. 3, 33 pp. 44 figs.

170.—Balfour-Browne, F. The aquatic Coleoptera of the Western Scottish Islands with a discussion on their sources of origin and means of arrival. Ent. Gaz., London **4**: 79–127.

171.—Balfour-Browne, J. Changes of nomenclature in the Cryptophagidae (Col.). Ent. mon. Mag., London **89**: 258.

172.—Balfour-Browne, J. *Hydrodessus* gen. n. Hydroporinarum (Coleoptera, Dytiscidae). Proc. R. ent. Soc. London (B) **22**: 55–56, 1 fig.

173.—Ball, G. H. & **Clark,** E. W. Species differences in amino acids of *Culex* mosquitoes. Syst. Zool., Washington, D.C. **2**: 138–141. [Dipt.]

174.—Balogh, J. & **Gere,** G. Ueber die Ernährungsbiologie und Luftstickstoffbindung der *Hyphantria*-Raupen. Acta biol., Budapest **4**: 431–452, 3 figs. [Lep.]

175.—Balthasar, V. Monographie des Chrysidides de Palestine et des pays limitrophes. Acta ent. Mus. nat. Pragae **27** 1951 suppl. 2: 1–317, 33 figs. [Hym.]

176.—Banerjee, S. P. Physiology of the alimentary canal of *Pyrilla perpusilla* Walk. (Fulgoridae: Homoptera). Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts: 195.

177.—Bänninger, M. Die Verbreitung von *Nebria* (*Oreonebria*) *rätzeri* Bänn. mit Nachträgen zu bisher erschienenen Karten. Ent. Bl., Krefeld **49**: 34–38, 1 fidg. map. [Col.]

178.—Baranyovits, F. Some aspects of the biology of armoured scale insects. Endeavour, London **12**: 202–209, 1 col. pl. 8 figs. [Hem.]

179.—Barber, H. G. A new subfamily, genus and species belonging to the family Enicocephalidae (Hemiptera, Heteroptera). Amer. Mus. Novit., New York no. 1614: 1–4, 6 figs.

180.—Barber, H. G. A second revision of the genus *Ptochiomera* Say and its allies (Hemiptera, Lygaeidae). Proc. ent. Soc. Wash. **55**: 19–27.

181.—Barber, H. G. A revision of the genus *Kleidocerys* Stephens in the United States (Hemiptera, Lygaeidae). Proc. ent. Soc. Wash. **55**: 273–283.

182.—Barber, H. G. & **Sailer,** R. I. A revision of the turtle bugs of North America (Hemiptera: Pentatomidae). J. Wash. Acad. Sci. **43**: 150–162, 57 figs.

183.—Barbosa, A. J. S. Notas breves sôbre a ocorrência, biologia e métodos de control da lagarta dos amarilis *Brithys pancratii* Cyr. Rev. Fac. Ciênc., Lisbon (2C) **1** 1951: 281–290, 3 pls. 2 figs. [Lep.]

Barbosa, A. *see* Costa Leite & Barbosa.

184.—Barbotin, F. Contribution à l'étude de la faune du Massif Armoricain. Hyménoptères tenthrédoïdes. Bull. Soc. Sci. Bretagne, Rennes **26** (1951) : 129–139.

185.—Barigozzi, C. & **Pasquale,** A. di. Heterochromatic and euchromatic genes acting on quantitative characters, in *D. melanogaster*. Heredity, London **7** : 389–399. [Dipt.]

186.—Barigozzi, C. & **Petrella,** L. Number and behaviour of chromosomes in *Aphiochaeta xanthina* Speiser. Experientia, Basle **9** : 337–338, 8 figs. [Dipt.]

187.—Barlet, J. Morphologie du thorax de *Lepisma saccharina* L. (Aptérygote Thysanoure) II. Musculature (1re partie). Bull. Ann. Soc. ent. Belg., Brussels **89** : 215–236, 1 fig.

188.—Barnes, H. F. The biological approach to the species problem in gall midges (Dipt., Cecidomyidae). Ann. ent. fenn., Helsinki **19** : 1–24.

189.—Barnes, H. F. Description of the new gall midge found by M. R. Pussard on lavender, together with notes on the damage caused by some other species (Dipt. Cecidomyidae). Bull. Soc. ent. Fr., Paris **58** : 125–128.

190.—Barnes, H. F. Outlines of insect phenology. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 163–173, 7 figs.

Barnes, H. F. *see* Buxton & Barnes.

191.—Barnhart, C. S. & **Chadwick,** L. E. A " fly factor " in attractant studies. Science, New York **117** : 104–105, 1 fig.

192.—Barragué, G. Deux espèces de Lépidoptères nouvelles pour la faune algérienne. Bull. Soc. Hist. nat. Afr. N., Algiers **44** : 184.

193.—Barrera, A. Notas sobre Sifonápteros. V, VI. Ciencia, Mexico **12** 1952 : 187–194, 6 figs. ; **13** : 157–161, 7 figs.

194.—Barth, R. Estudos anatômicos e histológicos sôbre a subfamília Triatominae (Hemiptera—Reduviidae). II Parte : Um novo órgão sensível das Triatominae. Manguinhos, Rio de Janeiro **1** 1952 no. 5 : 1–4, 3 figs.

195.—Barth, R. Um novo órgão glandular do macho de *Eriopyga lamptera* Druce 1890 (Lepidoptera, Noctuidae, Hadeninae). Manguinhos, Rio de Janeiro **2** no. 8 : 1–5, 4 figs.

196.—Barth, R. Zur Biologie der braunroten Blütenameise *Monomorium floricola*. Naturwissenschaften, Berlin **40** : 40. [Hym.]

197.—Barth, R. Die Fangdrüsen an den Beinen von *Zelus* (*Diplocodus*) *leucogrammus* (Perty 1834) (Heteroptera, Reduviidae). Zool. Jb., Jena (Anat.) **73** : 325–336, 9 figs.

Bartolotta, A. J. *see* Ludwig & Bartolotta.

Basavanna *see* Channa Basavanna.

198.—Basden, E. B. The autumn flush of *Drosophila* (Diptera). Nature, London **172** : 1155–1156. [Dipt.]

199.—Basilewsky, P. Sur le genre *Atrotus* Péringuey (Col. Carabidae) et quelques considérations sur le peuplement entomologique des hautes montagnes de l'Afrique. Ann. Soc. zool. Belg., Louvain **82** 1951 : 5–18, 5 figs.

200.—Basilewsky, P. Un genre nouveau d'Anchoménien de l'île de San Thomé (Col. Carabidae Anchomeninae). Bull. Ann. Soc. ent. Belg., Brussels **89** : 272–277, 2 figs.

201.—Basilewsky, P. Mission A. Villiers au Togo et au Dahomey (1950) XXII.—Coléoptères Carabidae. Bull. Inst. franç. Afr. noire, Dakar **15** : 522–542.

202.—Basilewsky, P. Contribution à l'étude des Coléoptères Carabiques de l'Afrique occidentale. IV, V. Bull. Inst. franç. Afr. noire, Dakar **15** : 1029–1030, 1031–1036.

203.—Basilewsky, P. Contribution à l'étude de la zone d'inondation du Niger (mission G. Remaudière, 1950) VI. Coléoptères Carabidae. Bull. Inst. franç. Afr. noire, Dakar **15** : 1552–1560.

204.—Basilewsky, P. Carabidae (Coleoptera Adephaga). Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. 10 : 1–252, 10 pls. 57 figs. 1 fldg map.

205.—Basilewsky, P. Prioninae (Coleoptera Phytophaga)Fam.Cerambycidae. Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. 17 : 83–93, 6 figs.

206.—Basilewsky, P. Expedition to the Gughé Highlands (Southern Ethiopia), 1948–49 : Coleoptera, Carabidae. J. Linn. Soc. London **42** : 276–292, 9 figs.

207.—Basilewsky, P. La réserve naturelle intégrale du Mt Nimba, fascicule 1. VII. Coléoptères Carabidae. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 71–126, 25 figs.

208.—Basilewsky, P. Contributions à l'étude des Coléoptères Carabiques de la région malgache. I. Mém. Inst. sci. Madagascar, Tananarive (E) **3** : 53–65, 7 figs.

209.—Basilewsky, P. Sur les types des Carabidae sud-africains décrits par H. D. J. Wallengren. Opusc. ent., Lund **18** : 190–192. [Col.]

210.—Basilewsky, P. Coléoptères Carabidae africains nouveaux. VI. Rev. Zool. Bot. afr., Tervuren **47** : 160–170.

211.—Basilewsky, P. Descriptions de trois Carabiques anophtalmes nouveaux du Kivu et du Ruanda-Urundi (Col. Carabidae). Rev. Zool. Bot. afr., Tervuren **47** : 171–176, 3 figs.

212.—Basilewsky, P. Révision des Leleupidiini (Col. Carabidae Zuphiinae). Rev. Zool. Bot. afr., Tervuren **47** : 263–281, 25 figs.

213.—Basilewsky, P. Descriptions de deux Panagéines aberrants nouveaux du Ruanda-Urundi (Col. Carabidae Panagaeinae). Rev. Zool. Bot. afr., Brussels **48** : 42–48, 5 figs.

214.—Basilewsky, P. Carabiques nouveaux d'Abyssinie (Coleoptera Carabidae). Riv. Biol. colon., Rome **12** (1952) : 43–48.

215.—Basilewsky, P. Ruwenzori Expedition 1934–35. Carabidae. London, Brit. Mus. (Nat. Hist.) **3** : 175–177. [Col.]

216.—Bator, A. Die Heteropteren Nordtirols I. Tingidae (Netzwanzen). Beitr. Ent., Berlin **3** : 323–333, 3 pls. [Hem.]

217.—Bauer, H. Die Chromosomen im Soma der Metazoen (Referat). Verh. dtsch. zool. Ges., Leipzig **1952** : 252–268, 6 figs.

218.—Bauer, H. Die Istanbuler Hypothese von Entwicklung und Bau der Riesenchromosomen. Verh. dtsch. zool. Ges., Leipzig **1952** : 275–279.

219.—Bauers, C. Ueber die Orientierung wirbelloser Tiere zum Licht. Zool. Jb., Jena (Allg. Zool.) **64** : 348–390, 13 figs.

220.—Bauers, C. Der Fixierbereich des Insektenauges. Z. vergl. Physiol., Berlin **34** : 589–605, 16 figs.

Bawa, S. R. *see* Nath, Bawa, Bhardwaj & Gupta.

221.—Beams, H. W., **Sedar,** A. W. & **Evans,** T. C. Studies on the neurons of the grasshopper with special reference to the Golgi bodies, mitochondria and neurofibrillae. Cellule, Louvain **55** : 291–304, 3 pls. [Orth.]

Beard, R. L. *see* Bliss & Beard.

Beaudry, J. R. *see* Urquhart & Beaudry.

222.—Beaumont, J. de. Notes sur quelques Sphecidae de la collection A. Costa (Hym.). Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 10 : 1–15.

223.—Beaumont, J. de. Contribution à l'étude du peuplement de la Mauritanie. Hyménoptères Sphecidae. Bull. Inst. franç. Afr. noire, Dakar **15** : 171–177.

224.—Beaumont, J. de. Notes sur quelques *Tachysphex* de la faune française (Hym. Sphecidae). Bull. Soc. ent. Fr., Paris **58** : 14–15.

225.—Beaumont, J. de. Hyménoptères récoltés par une Mission suisse au Maroc (1947) Sphecidae 2. Bull. Soc. Sci. nat. Maroc, Rabat **32** (1952) : 107–131, 7 figs.

226.—Beaumont, J. de. La variation géographique de *Cerceris flaviventris* Lind. (Hymenoptera, Sphecidae). Mem. Estud. Mus. zool. Univ. Coimbra no. 217 : 1–8, 10 figs.

227.—Beaumont, J. de. Les *Bembix* espagnols et nord-africains décrits par R. G. Mercet et J. Giner Mari (Hym. Sphecid.). Mitt. schweiz. ent. Ges., Berne **26** : 77–80.

228.—Beaumont, J. de. Les *Gorytes* s.s. (=*Hoplisus*) de la région paléarctique (Hym. Sphecid.). Mitt. schweiz. ent. Ges., Berne **26**: 161–200, 12 figs.

229.—Beaumont, J. de. Notes sur quelques types de Sphecidae décrits par A. G. Dahlbom (Hym.). Opusc. ent., Lund **18**: 193–198. [Hym.]

230.—Beaumont, J. de. Le genre *Olgia* Radoszk. (Hym. Sphecid.). Rev. suisse Zool., Geneva **60**: 205–223, 14 figs.

231.—Beccari, F. Osservazioni sulla biologia del *Longitarsus linnaei* Duft. (Coleoptera Chrysomelidae). Redia, Florence **37** 1952: 309–325, 2 pls.

232.—Bechyné, J. Nouveaux Eumolpides de Madagascar. Bull. mens. Soc. linn. Lyon, Lyons **22**: 230–233. [Col.]

233.—Bechyné, J. Les Chrysomélides vrais capturés par le Rév. Père Pio Buck à Rio Grande do Sul (Brésil méridional) (Col. Phytophaga). Dusenia, Curitiba **4**: 1–18, 5 figs.

234.—Bechyné, J. Katalog der neotropischen Eumolpiden (Col. Phytoph. Chrysomeloidea). Ent. Arb., Munich **4**: 26–303, 1 pl. 1 fig.

235.—Bechyné, J. Notes sur les *Timarcha* (Col. Phytoph. Chrysomelidae). Eos, Madrid **29**: 85–99.

236.—Bechyné, J. Chrysomelinae (Coleoptera Phytophaga). Explor. Parc nat. Albert, Miss. de Witte (1933–1935), Brussels fasc. 79: 82–86.

237.—Beck, E. G. Near extinction of the Celtis petiole gall insect in North Georgia. Ecology, Lancaster, Pa. **34**: 207. [Hem.]

238.—Beck, S. D. Nutrition of the European corn borer, *Pyrausta nubilalis* (Hbn.). III. An unidentified dietary factor required for larval growth. J. gen. Physiol., Baltimore **36**: 317–325, 1 fig. [Lep.]

239.—Beckel, W. E. Preparing mosquito eggs for embryological study. Mosquito News, Albany, N.Y. **13**: 235–237. [Dipt.]

240.—Beckel, W. E. Preliminary observation on a hatching stimulus for *Aedes* eggs (Culicidae). Science, New York **118**: 279–280. [Dipt.]

241.—Becker, E. C. & Sanderson, M. W. Honduras Pselaphidae. Ann. ent. Soc. Amer., Columbus **46**: 399–432, 6 pls. [Col.]

242.—Becker, G. Beobachtungen über Eier und Eiablage einiger holzfressender Cerambyciden. Beitr. Ent., Berlin **3**: 504–518, 9 figs. [Col.]

243.—Becker, G. & Weber, W. *Theocolax formiciformis* Westwood (Hym. Chalcid.), ein Anobienparasit. Z. Parasitenk., Berlin **15** 1952: 339–356, 6 figs.

Becker, H. *see* Schäfer & Becker.

244.—Beckman, H. F., Bruckart, S. M. & Reiser, R. Laboratory culture of the pink bollworm on chemically defined media. J. econ. Ent., Menasha **46**: 627–630. [Lep.]

245.—Beebe, W. A contribution to the life history of the Euchromid moth *Aethria carnicauda* Butler. Zoologica, New York **38**: 115–159. [Lep.]

246.—Beermann, W. Chromosommenpolymorphismus und Bastardierung zweier *Chironomus*-Arten. Verh. dtsch. zool. Ges., Leipzig **1952**: 290–295, 1 fig. [Dipt.]

247.—[Bei-Bienko, G. Ya., Bogdanov-Kat'kov, N. N., Fal'kenshtein, B. Yu., Chigarev, G. A. & Shchegolev, V. N.] Agricultural entomology. Pests of agricultural crops and measures for their control. 2nd edn. revd. [In Russian.] Moscow, Ogiz 1949 764 pp. 267 figs.

248.—Beier, M. Some new and interesting South African Mantids from the Transvaal Museum. Ann. Transv. Mus., Pretoria **22**: 255–262, 6 figs. [Orth.]

249.—Beier, M. Die südafrikanischen Arten der Gattung *Bolbella* G.-Tos (Mantidea). Ann. Transv. Mus., Pretoria **22**: 263–266, 3 figs. [Orth.]

250.—Beier, M. Miozäne und oligozäne Insekten aus Oesterreich und der unmittelbar angrenzenden Gebieten. S.B. Akad. Wiss. Wien Abt. I **161** 1952: 129–134, 1 pl. 2 figs. [Fossil.]

251.—Beier, M. The 3rd Danish Expedition to Central Asia. Zoological results 9. Mantiden (Insecta) aus Afghanistan. Vidensk. Medd. dansk naturh. Foren. Kbh. **115** : 169–172. [Orth.]

252.—Beirne, B. P. Ecology of British marsh and fen Lepidoptera. Ent. Gaz., London **4** : 297–304.

253.—Beirne, B. P. & **Young,** jr., D. A. The North American species of *Cicadula* (Homoptera : Cicadellidae). Canad. Ent., Ottawa **85** : 215–226, 68 figs.

Beiser, jr., W. C. *see* Clark & Beiser.

254.—[Bekker-Migdisova, E. É.] A survey of the fauna of Zygoptera and Copeognatha of the Erunakovo and Kuznetzk areas of the Kuznetzk basin. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **90** : 97–100. [Fossil.]

255.—[Bekker-Migdisova, E. É.] The first finding of Psocoptera from the Kuznetzk basin. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **90** : 279–282, 1 fig. [Fossil.]

256.—[Bekker-Migdisova, E. É.] Two representatives of Hemipterous insects from the district of Maduigen. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **90** : 461–464, 2 figs. [Fossil.]

257.—Belkin, J. N. Mosquitoes of the genus *Uranotaenia* in the Solomon Islands (Diptera : Culicidae). Pacif. Sci., Honolulu **7** : 312–391, 14 figs.

258.—Belkin, J. N. Corrected interpretations of some elements of the abdominal chaetotaxy of the mosquito larva and pupa (Diptera, Culicidae). Proc. ent. Soc. Washington **55** : 318–324, 5 figs.

Bell, C. R. *see* Steinhaus & Bell.

259.—Benander, P. Sällsynta småfjärilar från Kullaberg (Microlep.). Opusc. ent., Lund **18** : 31–32, 1 fig.

260.—Benander, P. Catalogus insectorum sueciae. Additamenta VI. Microlepidoptera. Opusc. ent., Lund **18** : 89–101.

Benedict, A. A. *see* Micks & Benedict.

261.—Benesh, B. Descriptions of new exotic species of stag-beetles (Lucanidae). Coleopt. Bull., Washington, D.C. **7** : 25–32, 2 figs.

262.—Benick, G. Synonymische Bemerkungen über die Gattung *Atheta* und deren nächste Verwandte. Ent. Bl., Krefeld **49** : 30–32. [Col.]

Bennett, N. H. *see* Stempffer & Bennett.

Bennetts, M. J. *see* Day & Bennetts.

264.—Benoit, P. L. G. Sur les genres éthiopiens *Gabunia* Kriechb., *Paracollyria* Cam. et *Hieroceryx* Tosq. (Hym.-Ichneum.-Pimpl.) spécialement au Congo belge. Ann. Soc. zool. Belg., Louvain **82** 1951 : 93–106.

265.—Benoit, P. L. G. Un Stéphanide nouveau du Tibesti. Bull. Ann. Soc. ent. Belg., Brussels **89** : 39–40. [Hym.]

265A.—Benoit, P. L. G. Ichneumonidae-Pimplinae du National Museum of southern Rhodesia. Bull. Ann. Soc. ent. Belg., Brussels **89** : 278–281. [Hym.]

266.—Benoit, P. L. G. Contribution à la connaissance des Ichneumonides de l'Afrique occidentale (1re note). Bull. Inst. franç. Afr. noire, Dakar **15** : 543–548, 2 figs. [Hym.]

267.—Benoit, P. L. G. Sur des Polysphynctini du Congo belge (Ichneum.-Pimpl.). Rev. Zool. Bot. afr., Tervuren **47** : 137–141. [Hym.]

268.—Benoit, P. L. G. Deux nouveaux Dryinidae du Congo belge (Hym.-Acul.). Rev. Zool. Bot. afr., Tervuren **47** : 142–144.

269.—Benoit, P. L. G. Notes ichneumonologiques africaines III —V. Rev. Zool. Bot. afr., Tervuren **47** : 145–152, 3 figs., 153–159 ; **48** : 81–88, 2 figs. [Hym.]

270.—Benoit, P. L. G. Nouveaux Glyptini du Congo belge (Ichneum.-Banchinae). Rev. Zool. Bot. afr., Tervuren **47** : 249–257. [Hym.]

271.—Benoit, P. L. G. Un nouveau *Dixa* du Congo belge (Dipt.-Dixidae). Rev. Zool. Bot. afr., Tervuren **48** : 202–203, 4 figs.

272.—Benoit, P. L. G. Trois nouveaux Evaniidae du Congo belge (Hymen.). Rev. Zool. Bot. afr., Tervuren **48** : 257–260, 5 figs.

273.—Benson, R. B. A new British *Nematus* (Hym., Tenthredinidae) attacking black-currant. Ent. mon. Mag., London **89** : 60–63, 11 figs.

274.—Benson, R. B. Some changes and additions to the list of British sawflies with the descriptions of two new species (Hym., Tenthredinidae). Ent. mon. Mag., London **89** : 150–154, 3 figs.

275.—Benson, R. B. The sawfly *Tenthredo temula* of British authors is an undescribed species (Hym., Tenthredinidae). Ent. mon. Mag., London **89** : 275–277, 1 fig.

276.—Benson, R. B. A revision of the genus *Fenella* Westwood (Hymen., Tenthredinidae). Proc. R. ent. Soc. London (B) **22** : 136–138, 2 figs.

277.—Benz, F. Die primären *Celerio lineata* F.—*livornica* Esp.—Bastarde : *C.* hybr. *ulrichi* Benz und *C.* hybr. *lineavornica* Fisch. Mitt. ent. Ges. Basel (N.F.) **3** : 9–14, 17–20, 1 fig., 33–38. [Lep.]

278.—Bequaert, J. C. The Hippoboscidae or louse-flies (Diptera) of mammals and birds. Part I. Structure, physiology and natural history. Ent. amer., Lancaster, Pa. **32** (1952) : 1–442, 20 figs.

279.—Bequaert, J. C. Hippoboscidae and Nycteribiidae (Diptera, Brachycera, Cyclorrhapha). Explor. Parc nat. Albert, Miss. de Witte (1933–1935), Brussels fasc. 79 : 89–94.

280.—Berg, C. O. Sciomyzid larvae (Diptera) that feed on snails. J. Parasit., Lancaster, Pa. **39** : 630–636.

281.—Berger, L. A. Remarques sur le dimorphisme saisonnier des Lépidoptères du Congo belge. Ann. Soc. zool. Belg., Louvain **82** 1951 : 19–22.

282.—Berger, L. A. New forms of *Colias* (Lep. Pieridae) collected in Arabia by Major H. St. J. B. Philby, C.I.E. Entomologist, London **86** : 171–172.

283.—Berger, L. A. Sur la validité du genre *Cymothoë* Hübner 1819 (Lepidoptera-Nymphalidae). Lambillionea, Brussels **52** 1952 : 65–67.

284.—Berger, L. A. *Aphnaeus* nouveaux du Congo belge (Lepidoptera - Lycaenidae). Lambillionea, Brussels **52** 1952 : 68–70.

285.—Berger, L. A. Note sur les moeurs d'*Augiades venata* Bremer-Grey. Lambillionea, Brussels **52** 1952 : 73–75. [Lep.]

286.—Berger, L. A. Les *Earias* Hb. du Congo belge (Lepidoptera-Phalaenidae (Noctuidae auct.)). Rev. Zool. Bot. afr., Brussels **48** : 204–208.

287.—Berger, L. A. Pieridae nouveaux du Musée royal du Congo belge (Lepidoptera-Rhopalocera). Rev. Zool. Bot. afr., Brussels **48** : 209–210.

288.—Bergmann, A. Die Grossschmetterlinge Mitteldeutschlands. Unter besonderer Berücksichtigung der Formenbildung, der Vegetation und der Lebensgemeinschaften in Thüringen sowie der Verflechtung mit der Fauna Europas. Bd. 2 Tagfalter. 1952 xii & 495 pp. 69 pls. (4 col.), 92 figs. ; Bd. 3 Spinner und Schwärmer. xii & 552 pp. 56 pls. (5 col.), 99 figs. Jena, Urania-Verlag. [Lep.]

289.—Bergmans, L. & **Brosens,** J. Etude d'un nid cartonné des guêpes *Polybioides melaina* Meade-Waldo. Bull. Cercl. zool. cong., Brussels **21** : 12–14, 1 fig. [Hym.]

290.—Bergold, G. H. On the nomenclature and classification of insect viruses. Ann. New York Acad. Sci. **56** : 495–516, 4 figs.

Bergold, G. H. *see* Holoway & Bergold.

291.—Berio, E. Sulla impiegabilità del nome *Noctua* Linn. 1757. Boll. Soc. ent. ital., Genoa **82** 1952 : 9–10. [Lep.]

292.—Berio, E. Impianto di uno schedario tassonomico. Boll. Soc. ent. ital., Genoa **82** 1952 : 23–28.

293.—Berio, E. Contributo alla conoscenza di Noctuidae poco note, diagnosi di nuove specie e note critiche. Doriana, Genoa **1** no. 34 : 1–6, 13 figs. [Lep.]

294.—Berland, L. La réserve naturelle intégrale du Mt Nimba, fascicule 1. XII. Hyménoptères vespiformes. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 271–276.

Bernard, B. *see* Lemonde & Bernard.

295.—Bernard, F. Le polymorphisme social et son déterminisme chez les fourmis. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952 : 123–140. [Hym.]

296.—Bernard, F. La réserve naturelle intégrale du Mt Nimba fascicule 1. XI. Hyménoptères Formicidae. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 165–270, 3 pls. 15 figs.

297.—Bernardi, G. Lépidoptères Pieridae recueillis à Fernando-Poo par MM. P. L. Dekeyser, P. Lepesme. Bull. Inst. franç. Afr. noire, Dakar **15** : 1437–1440, 2 figs.

298.—Bernardi, G. Note sur la taxonomie des genres *Belenois* Hb. et *Anaphaeis* Hb. (Lep. Pieridae). Rev. franç. Ent., Paris **20** : 47–53, 14 figs.

299.—Berner, L. New mayfly records from Florida and a description of a new species. Florida Ent., Gainesville **36** : 145–149, 3 figs. [Ephem.]

Berry, P. A. *see* Parker, Berry & Silveira Guido.

300.—Bertrand, H. Diptères Chironomides pyrénéens (2e note). Bull. Soc. ent. Fr., Paris **58** : 76–79.

301.—Bertrand, H. Nouvelles stations espagnoles de l'*Haliplus lapponum* Thoms. (Col. Haliplidae). Bull. Soc. ent. Fr., Paris **58** : 87–89.

302.—Bertrand, H. Récoltes de Coléoptères aquatiques (Hydrocanthares) dans les Pyrénées : observations écologiques (deuxième note). Bull. Soc. zool. Fr., Paris **78** : 59–70.

303.—Bertrand, H. Remarques sur la biogéographie de quelques Coléoptères aquatiques de l'Afrique du Nord. C.R. Soc. Biogéogr., Paris **28** 1951 : 114–118.

304.—Bertrand, H. La larve des *Eretes* Cast. (Col. Dytiscidae). Mém. Inst. sci. Madagascar, Tananarive (A) **3** 1949 : 333–340, 5 figs.

305.—Bertrand, H. Récoltes de Diptères Chironomides dans les Pyrénées (2me note). Vie et Milieu, Paris **3** 1952 : 314–332.

306.—Besuchet, C. *Bibloplectus* nouveaux d'Europe centrale (Col. Pselaphidae). Mitt. schweiz. ent. Ges., Berne **26** : 225–232, 22 figs.

307.—Betrem, J. G. Enkele opmerkingen omtrent de soorten van de *Formica rufa*-groep (Hym.). Ent. Ber., Amsterdam **14** : 322–326.

308.—Betrem, J. G. The occurrence of local races in *Helopeltis antonii* Sign. Tijdschr. PlZiekt., Wageningen **59** : 174–177. [Hem.]

309.—Betrem, J. G. Interrelation and interaction of biotic and abiotic factors in some tropical insects. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 278–281.

310.—Beuret, H. Intersexualität bei *Plebejus argus* L. (Lepidoptera, Lycaenidae). Mitt. ent. Ges. Basel (N.F.) **3** : 20–24, 25–31, 4 pls. 1 fig., 41–48, 1 pl. 2 figs.

311.—Beuret, H. Was ist *Lycaena icarescheri* Wrli. ? Mitt. ent. Ges. Basel (N.F.) **3** : 69–74, 85–89, 3 figs. [Lep.]

312.—Bezem, J. J. & **Sobels,** F. H. Penetrance and expressivity in the genotype *abnormal abdomen* of *Drosophila melanogaster*. Proc. Acad. Sci. Amsterdam **56C** : 48–61, 2 figs. [Dipt.]

Bhardwaj, R. *see* Nath, Bawa, Bhardwaj & Gupta.

Bhasin, G. D. *see* Roonwal, Mathur, Bhasin, Singh, Pant, Chandra, Katiyar & Mathur.

Bhatia, C. L. *see* Nath & Bhatia.

Bhatia, D. R. *see* Pruthi & Bhatia.

313.—Biagi, A. M. de B. de. Observaciones ecológicas sobre mosquitos de "El Ajenjibre", Pue., México. An. Inst. Biol., Mexico **24**: 177–204. [Dipt.]

314.—Biagi F., F. & **Biagi,** A. M. de B. de. Algunos flebotomus del área endémica de Leishmaniasis tegumentaria americana del Estado de Campeche (Méx.). Medicina, Mexico **33** : 315–319. [Dipt.]

315.—Biancheri, E. Note sugli Efemerotteri italiani–I. Boll. Soc. ent. ital., Genoa **83** : 42–45.

316.—Bianchi, F. A. Thysanoptera of Samoa. Proc. Hawaii. ent. Soc., Honolulu **15** : 93–108, 3 pls.

317.—Bibolini, C. Nota preliminare sul *Mytilococcus destefanii* Leon. vivente sull'olivo in Liguria ed in Toscana (Homoptera : Coccidae). Boll. Soc. ent. ital., Genoa **82** 1952 : 13–14.

318.—Bick, G. H. The nymph of *Miathyria marcella* (Selys) (Odonata, Libellulidae). Proc. ent. Soc. Wash. **55** : 30–36, 6 figs.

Bidlingmayer, W. L. *see* Klock & Bidlingmayer.

319.—Biegel, W. Die Tagesaktivität der Arbeiter eines Nestes von *Vespa germanica* F. Mitt. schweiz. ent. Ges., Berne **26** : 293–294, 1 fig. [Hym.]

320.—Biegel, W. Zur Biologie und Oekologie sozialer Wespen. S.B. phys.-med. Soz. Erlangen **76** : 115–153. [Hym.]

321.—Bielańska - Osuchowska, Z. Early stages of embryonic development of the weevil *Polydrosus mollis* Ström (Coleoptera, Curculionidae). Bull. int. Acad. Cracovie (BII) **1951** 1952 : 497–509, 9 figs.

322.—Bier, K. Beziehungen zwischen Nährzellkerngrösse und Ausbildung ribonukleinsäurehaltiger Strukturen in den Oocyten von *Formica rufa rufo-pratensis minor* Gösswald. Verh. dtsch. zool. Ges., Leipzig **1952** : 369–374, 6 figs. [Hym.]

323.—Bier, K. Vergleichende Untersuchungen zur Fertilität der Ameisenarbeiterinnen. Zool. Anz., Leipzig **150** : 272–288. [Hym.]

Bier, K. *see* Gösswald & Bier.

Bigelow, R. S. *see* DuPorte & Bigelow.

324.—Bilewicz, S. Experiments on the effect of reproductive functions on the length of life in *Drosophila melanogaster*. [In Polish with English summary.] Folia biol., Krakow **1** : 177–194. [Dipt.]

325.—Biliotti, E. Importance et signification des arrêts de développement au stade nymphal chez *Thaumetopoea processionea*. C.R. Acad. Sci., Paris **236** : 1703–1705. [Lep.]

326.—Biliotti, E., **Grison,** P. & **Silvestre de Sacy,** R. Observations sur le cycle évolutif de la processionnaire du pin, *Thaumetopoea pityocampa* Schiff. (Lep. Notodontidae). Bull. Soc. ent. France, Paris **58** : 30–32.

Biliotti, —. *see* Grison & Biliotti.

Bindra, O. S. *see* Pradhan & Bindra.

327.—Birch, L. C. Experimental background to the study of the distribution and abundance of insects. III. The relation between innate capacity for increase and survival of different species of beetles living together on the same food. Evolution, Lancaster, Pa. **7** : 136–144, 4 figs. [Col.]

328.—Birch, L. C. & **Clark,** D. P. Forest soil as an ecological community with special reference to the fauna. Quart. Rev., Baltimore **28** : 13–36, 2 figs.

329.—Bird, F. T. The effect of metamorphosis on the multiplication of an insect virus. Canad. J. Zool., Ottawa **31** : 300–303, 4 pls.

330.—Bird, F. T. & **Whalen,** M. M. A virus disease of the European pine sawfly, *Neodiprion sertifer* (Geoffr.). Canad. Ent., Ottawa **85** : 433–437, 6 figs. [Hym.]

331.—Birukow, G. Photo-Geomenotaxis bei *Geotrupes silvaticus* Panz. Naturwissenschaften, Berlin **40** : 61–62, 1 fig. [Col.]

332.—Birukow, G. Menotaxis im polarisierten Licht bei *Geotrupes silvaticus* Panz. Naturwissenschaften, Berlin **40** : 611–612, 1 fig. [Col.]

333.—Birukow, G. Photogeomenotaktische Transpositionen bei *Geotrupes silvaticus* Panz. Rev. suisse Zool., Geneva **60** : 535–540, 3 figs. [Col.]

334.—Bischoff, H. *Ibalia jakowlewi* Jacobs., ein neuer deutscher Siriciden-Parasit, sowie Bemerkungen über die weiteren deutschen Ibaliiden (Hymenoptera : Cynipoidea : Ibaliidae). Beitr. Ent., Berlin **3** : 536–540.

335.—Bitsch, J. Contribution à l'étude de la faune des Trichoptères de la Côte-d'Or. Bull. Soc. ent. France, Paris **58** : 25–28.

336.—Blackie, J. E. H. A further note on *Agapetes galathea*, L. (Lep. Satyridae). Entomologist, London **86** : 202–204.

337.—Blackie, J. E. H. The Lepidoptera of Huntingdonshire. Rep. Huntingdon. Fauna Fl. Soc. no. 5 (1952) [1953] : 12–15.

338.—Blair, K. G. *Anteon* (*Chelogynus*) *collare* Dalm. (?) (Hym., Dryinidae) a parasite of *Opsius stactogalus* Amyot (Hem., Jassidae), with some notes on other species of Dryinidae. Ent. mon. Mag., London **89** : 29–30.

339.—Blake, D. H. Two new species of *Glyptoscelis* (Col. Chrysomelidae) from Argentina. Acta zool. lilloana, Tucuman **10** 1952 : 163–166, 2 figs.

340.—Blake, D. H. Eight new Neotropical Chrysomelid beetles (Coleoptera). J. Wash. Acad. Sci. **43** : 232–237, 8 figs.

341—Blake, D. H. The Chrysomelid beetles of the genus *Strabala* Chevrolat. Proc. U.S. nat. Mus., Washington **103** no. 3319 : 121–134, 13 figs. [Col.]

Blanton, F. S. *see* Wirth & Blanton.

342.—Błeszyński, S. Studies on the family Crambidae (Lepidoptera). Part V. A second location of *Crambus maculalis* Zett. in Polish Tatra Mts. [In Polish with English summary.] Bull. ent. Pologne, Wrocław **20** (1950) 1951 : 94–96.

343.—Błeszyński, S. Butterfly species new to the fauna of Poland. [In Polish with English summary.] Bull. ent. Pologne, Wrocław **20** (1950) 1951 : 97–99. [Lep.]

344.—Błeszyński, S. Studies of the genus *Crambus* F. (Lepidoptera —Crambidae). Part I. [In Polish with English summary.] Bull. ent. Pologne, Wrocław **21** (1951) 1952 : 61–127, 26 pls. 4 figs.

345.—Błeszyński, S. Studies on the Crambidae. Part VII. Studies on the European species of the "*Pediasia fascelinella*" Hbn.—group. Bull. ent. Pologne, Wrocław **22** 1952 : 140–169, 10 pls. [Lep.]

346.—Bletchly, J. D. A note on the prepupal stage and the external sex characters of the pupae of *Anobium punctatum* (Deg.) (Coleoptera, Anobiidae). Bull. ent. Res., London **43** : 587–590, 1 fig.

347.—Bletchly, J. D. The mouthparts of the Yellow Dung-fly, *Scopeuma* (=*Scatophaga*) *stercoraria* (L.) (Diptera, Cordyluridae). Proc. zool. Soc. London **123** : 143–165, 18 figs.

348.—Blickenstaff, C. C., Arbuthnot, K. D. & Harris, H. M. Parasites of the European corn borer in Iowa. Iowa St. Coll. J. Sci., Ames **27** : 335–379, 9 figs. [Lep.]

Blickle, R. L. *see* Morse & Blickle.

349.—Blight, W. C. & Romano, A. Notes on a breeding site of *Drosophila americana* near St. Louis, Missouri. Amer. Nat., Lancaster, Pa. **87** : 111–112. [Dipt.]

350.—Bliss, C. I. & Beard, R. L. Static and dynamic variation in the response of an insect to sublethal doses of two gases. Bull. Conn. agric. exp. Sta., New Haven no. 577 : 1–24, 4 figs.

Bloch, D. I. *see* Sacktor, Thomas, Moser & Bloch.

Blumenheim, U. *see* Spiess, Terrile & Blumenheim.

351.—Blumenthal, C. L. Die Laufkäfer der Lüneburger Heide. Beitr. Naturk. Niedersachs., Osnabrück **6** : 14–24. [Col.]

352.—Blunck, H. Ueber die Schlüpfzeit der Falter bei *Aporia crataegi* L. und *Pieris brassicae* L. Zool. Anz., Leipzig **151** : 237–252, 10 figs. [Lep.]

353.—Blüthgen, P. Portuguese and Spanish wasps (Hymenoptera, Vespoidea). Mem. Estud. Mus. zool. Univ. Coimbra no. 218 : 1–23.

354.—Blüthgen, P. Ueber *Leptochilus* (*Lionotulus*) *alpestris* (Śss.) (Hym., Vespidae, Eumeninae). Mitt. münch. ent. Ges., Munich **43** : 316–318.

355.—Blüthgen, P. Ergänzungen zur Faltenwespen-Fauna der Schweiz (Hym. Vespidae). Mitt. schweiz. ent. Ges., Berne **25** 1952 : 349–353.

356.—Blüthgen, P. Alte und neue paläarktische *Spilomena*-Arten (Hym. Sphecidae). Opusc. ent., Lund **18** : 160–179, 6 figs.

357.—Blüthgen, P. Die Eumeniden-Gattung *Allodynerus* Blüthg. 1938 (Hym., Vespidae). Zool. Anz., Leipzig **150** : 50–59.

358.—Blüthgen, P. Zur Biologie von *Stephanus serrator* F. (Hym., Stephanidae). Zool. Anz., Leipzig **150** : 229–234.

359.—Blüthgen, P. Zur Brutbiologie von *Microdynerus timidus* (Sss.) (Hym., Vespidae, Eumeninae). Zool. Anz., Leipzig **151** : 102–103.

Bo, G. *see* Pavan & Bo.

360.—Bobb, M. L. The life history of *Gerris canaliculatus* Say in Virginia (Hemiptera : Gerridae). Virginia J. Sci., Richmond (N.S.) **2** 1951 : 102–108, 1 pl.

361.—Bobb, M. L. Observations on the life history of *Hesperocorixa interrupta* (Say) (Hemiptera : Corixidae). Virginia J. Sci., Richmond (N.S.) **4** : 111–115, 8 figs.

362.—Bodenheimer, F. S. The Coccoidea of Turkey I–III. Rev. Fac. Sci. Univ. Istanbul (B) **17** 1952 : 315–351 ; **18** : 1–61, 91–164, 63 figs. [Hem.]

363.—Bodenheimer, F. S., **Halperin,** A. & **Swirski,** E. Experiments on light transmission through some animal integuments. Bull. Res. Counc. Israel, Jerusalem **2** : 436–438, 3 figs.

364.—Bodenstein, D. Studies on the humoral mechanisms in growth and metamorphosis of the cockroach, *Periplaneta americana*. I–III. J. exp. Zool., Philadelphia **123** : 189–232, 41 figs., 413–433, 1 pl. 11 figs. ; **124** : 105–115, 2 figs. [Orth.]

365.—Bodenstein, D. Endocrine control of metamorphosis with special reference to Holometabola. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 58–62.

Boline, J. H. *see* Lu & Bodine.

366.—Boer Leffef, W. J. Lepidopterologische opmerkingen. Ent. Ber., Amsterdam **14** : 361–363.

Bogdanov-Kat'kov, N. N. *see* Beĭ-Bienko, Bodganov-Kat'kov, Fal'kenshteĭn, Chigarev & Shchegolev.

367.—Bohart, G. E. & **Knowlton,** G. F. Notes on mating, prey provisioning, and nesting of *Sphex procerus* (Dahlbom). Proc. ent. Soc. Washington **55** : 100–101. [Hym.]

368.—Bohart, R. M. Three new species of *Stenodynerus* from eastern United States (Hymenoptera, Vespidae). Proc. biol. Soc. Washington **66** : 185–189.

369.—Bohart, R. M. A new species of *Culex* and notes on other species of mosquitoes from Okinawa (Diptera, Culicidae). Proc. ent. Soc. Wash. **55** : 183–188, 5 figs.

370.—Boisson, C. Sur la spermatogenèse du *Bacillus rossii* Fabr. Ann. Sci. nat., Paris Zool. (11) **14** (1952) : 449–451, 12 figs. [Orth.]

371.—Boisson, C. Les glandes endocrines céphaliques ventrales ou corpora incerta de *Bacillus rossii* Fab. Ann. Sci. nat., Paris Zool. (11) **14** (1952) : 453–472, 13 figs. [Orth.]

372.—Boitel, —. Notes sur *Plagionotus scalaris* Muls. et capture de cette espèce en Oranie. Bull. Soc. Hist. nat. Afr. N., Algiers **44** : 9–11. [Col.].

373.—Bolelli, R. R. Ecto y endo parásitos de las gallinas. Rev. chil. Hist. nat., Santiago **51-53** (1947–1949) 1951 : 3–56.

374.—Bollow, H. Zweiflügler (Diptera) I. Naturw. Grundbegr. landb. Praxis, Munich (Zool.) **29** : 1–10, 4 figs.

375.—Bonadona, P. Les *Anthicus* français du groupe du *floralis* L. et des groupes voisins. Rev. franç. Ent., Paris **20** : 89–103, 27 figs. [Col.]

376.—Bonadona, P. Les *Anthicus* français du groupe du *tristis* Schmidt. Rev. franç. Ent., Paris **20** : 253–264, 16 figs. [Col.]

377.—Bondar, G. A biologia do gênero *Oncideres* (Col. Ceramb.) e descrição de nova espécie. Agronomia, Rio de Janeiro **12** no. 2 : 29–31.

378.—Bondar, G. Sintese biologicas Curculionideos brasileiros. Bahia rural, Salvador **21** no. 11 : 29–31. [Col.]

379.—Bonelli, B. Osservazioni biologiche sul *Mellinus arvensis* L. e sull'*Oxybelus trispinosus* F. Boll. Ist. Ent. Univ. Bologna **19** 1952 : 137–143, 5 figs. [Hym.]

380.—Boness, M. Die Fauna der Wiesen unter besonderer Berücksichtigung der Mahd (Ein Beitrag zur Agrarökologie). Z. Morph. Oekol. Tiere, Berlin **42** : 225–277, 5 figs.

381.—Bonhag, P. F. & **Wick,** J. R. The functional anatomy of the male and female reproductive systems of the milkweed bug, *Oncopeltus fasciatus* (Dallas) (Heteroptera : Lygaeidae). J. Morph., Philadelphia, Pa. **93** : 177–283, 68 figs.

382.—Bonnemaison, L. Les parasites animaux des plantes cultivées et des forêts. Paris, Soc. Edit. Ingén. agric. 668 & x pp. 301 figs.

383.—Bonnet, P. Mise au point sur la lettre initiale des noms spécifiques de personnes. Bull. Soc. ent. Fr., Paris **58** : 113–124.

384.—Bonne-Wepster, J. & **Swellengrebel,** N. H. The Anopheline mosquitoes of the Indo-Australian region. Amsterdam, J. H. de Bussy 504 pp. 179 figs. 22 maps. [Dipt.]

385.—Bonnier, G. & **Lüning,** K. G. Sex linked lethals in *Drosophila melanogaster* from different modes of x-ray irradiation. Hereditas, Lund **39** : 193–200. [Dipt.]

386.—Boratyński, K. L. Sexual dimorphism in the second instar of some Diaspididae (Homoptera : Coccoidea). Trans. R. ent. Soc. London **104** : 451–479, 6 figs.

387.—Borgmeier, T. Syrphidenlarven in Ameisennestern. Naturwissenschaften, Berlin **40** : 36. [Dipt., Hym.]

388.—Borgmeier, T. Vorarbeiten zu einer Revision der neotropischen Wanderameisen (Hym. Formicidae). Studia ent., Rio de Janeiro **2** : 1–51, 35 figs.

389.—[Borkhsenius, N. S.] New genera and species of mealybugs of the family Coccidae (=Lecaniidae) of the fauna of the USSR and neighbouring countries (Insecta, Homoptera, Coccoidea). [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1952 : 269–316, 35 figs.

390.—Bose, M. Notes on life-histories of some common beetles. Agra Univ. J. Res. (Sci.) **2** : 309–317, 5 figs. [Col.]

391.—Bösiger, E. Fréquence des mutations visibles dans deux populations naturelles de *Drosophila melanogaster*. C.R. Acad. Sci., Paris **236** : 1999–2002. [Dipt.]

392.—Bösiger, E. Isolement sexuel entre deux souches mutantes de *Drosophila melanogaster*. C.R. Acad. Sci., Paris **237** : 934–936. [Dipt.]

393.—Bösiger, E. Activité sexuelle des femelles et des mâles de deux souches mutantes de *Drosophila melanogaster*. C.R. Acad. Sci., Paris **237** : 1180–1182. [Dipt.]

394.—Bösiger, E. Recherches sur l'isolement sexuel dans les populations expérimentales de *Drosophila melanogaster*. Influence de l'âge des individus sur le coefficient préférentiel. Experientia, Basle **9** : 221–222. [Dipt.]

395.—Bosq, J. M. Descripción de una nueva especie del género *Centrocerum* Chevr., 1861 (Col. Cerambycidae). Acta zool. lilloana, Tucuman **10** 1952 : 95–97.

396.—Bosq, J. M. & **Ruffinelli,** A. Notas para el catálogo de los Cerambícidos del Uruguay. Comun. zool. Mus. Montevideo **3** 1951 no. 62 : 1–32. [Col.]

397.—Botoşăneanu, L. *Carpathopsyche lateroproducta* n. g. n. sp. (Trichoptera, Limnophilidae). Acta Soc. zool. bohemoslov., Prague **16** 1952 : 1–22.

398.—Bouček, Z. Results of the zoological scientific expedition of the National Museum in Praha to Turkey. 7. Hymenoptera I. Chalcidoidea (first part). Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 383 : 47–57, 14 figs.

399.—Bouček, Z. *Steffanisa rubrocincta* n.g., n. sp., and notes of some other species (Chalcididae, Hym.). Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 388 : 201–205, 5 figs.

400.—Bouček, Z. A new pest of the cummin, *Systole albipennis* Walk. [In Czech with English summary.] Zool. ent. Listy, Brno **1** 1952 : 4–9, 6 figs. [Hym.]

401.—Bouček, Z., Půlpán, J. & Šedivý, J. Notizen über die parasitischen Hymenopteren des Fichtenborkenkäfers *Ips typographus* L. in Čsr. [In Czech with German summary.] Zool. ent. Listy, Brno **2** : 145–158, 4 pls.

402.—Bouillon, R. P. A. Les *Anopheles* de Kalenda (Kasai) (Congo belge) (Systématique—Ecologie). Rev. Zool. Bot. afr., Tervuren **47** : 48–51. [Dipt.]

403.—Bounhiol, J.-J. Suppression expérimental répétée de la diapause chez *Bombyx mori*. Rev. Zool. agr., Talence **51** 1952 : 86–90. [Lep.]

404.—Bounhiol, J. J. Rôle du corpus allatum dans la métamorphose des insectes. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 63–72, 5 figs.

405.—Bounhiol, J.-J., Gabe, M. & Arvy, L. Données histophysiologiques sur la neuro-sécrétion chez *Bombyx mori* L., et sur ses rapports avec les glandes endocrines. Bull. biol., Paris **87** : 323–333, 1 pl. 4 figs. [Lep.]

Bounhiol, J. J. *see* Arvy, Bounhiol & Gabe.

406.—Bourgogne, J. *Melitaea athalia athalia* Rott. et *M. athalia helvetica* Ruhl (*pseudathalia* Rev.) en France. Étude biogéographique (Lep. Nymphalidae). Ann. Soc. ent. Fr., Paris **122** : 131–176, 45 figs.

407.—Bourgogne, J. Un *Oreopsyche* nouveau de la péninsule ibérique (Lep. Psychidae). Bull. Soc. ent. Fr., Paris **58** : 89–95, 6 figs.

408.—Bourgogne, J. Considérations théoriques et pratiques sur l'emploi de la lumière pour la chasse aux insectes. Rev. franç. Lépid., Paris **14** : 60–64, 85–87, 2 figs.

409.—Bourgogne, J. Les lampes à vapeur de mercure. Étude théorique et pratique destinée aux entomologistes. Rev. franç. Lépid., Paris **14** : 87–99, 7 figs.

410.—Bourquin, F. Cuatro notas sobre metamorfosis de Microlepidópteros. I. *Aristotelia perplexa* Clarke; II. *Parastega hemisigna* Clarke; III. *Porphyrosela* sp.; IV. *Darlia praetexta* Clarke. Acta zool. lilloana, Tucuman **12** (1951) 1952 : 509–518, 4 pls.

411.—Bourquin, F. Notas sobre la metamorfosis de *Antispastis clarkei* Pastrana 1951 (Lep. Glyphipterygidae). Acta zool. lilloana, Tucuman **12** (1951) 1952 : 523–526, 1 pl., 4 figs.

412.—Bourquin, F. Metamorfosis de *Amastus prosenii* Köhler 1949 (Lep. fam. Arctiidae). Acta zool. lilloana, Tucuman **12** (1951) 1952 : 527–532, 1 pl.

413.—Bourquin, F. Metamorfosis de *Megalopyge lanceolata* Dogn. 1923 (Lep. Megalopygidae). Acta zool. lilloana, Tucuman **12** (1951) 1952 : 533–538, 1 pl., 1 fig.

414.—Bourquin, F. Notas sobre la metamorfosis de *Namuncuraia mansosotoi* Orfila, 1951 (Lep. Fam. Hemileucidae). Publ. Mis. Estud. Pat. reg. argent., Buenos Aires **24** no. 83–84 : 47–51, 8 figs.

415.—Boursin, C. Die *Cucullia*-Arten aus Dr. H. Hönes China-Ausbeuten während der Jahre 1931 bis 1938. Dtsch. ent. Z., Iris, Dresden **55** (1941) 1942 : 28–84, 7 pls. [Lep.]

416.—Boursin, C. Ueber die Gattung *Allophyes* Tams nebst Beschreibung einer neuen Art aus Klein-Asien (Lep. Phalaenidae (Noctuidae)). Mitt. münch. ent. Ges., Munich **43** : 239–247, 4 pls., 3 figs.

417.—Boursin, C. Zwei neue paläarktische *Cryphia* (*Bryophila*)-Arten. Mitt. münch. ent. Ges., Munich **43** : 248–251, 1 pl. [Lep.]

418.—Boursin, C. Ueber die systematische Stellung von *Crymodes dumetorum* Hb.-Geyer nebst Beschreibung einer neuer Gattung. Z. Lepid., Krefeld **3** : 47–49, 1 pl.

419.—Boursin, C. Zwei neue *Agrochola* Hb.-Arten (*Orthosia* auct.) aus der Umgebung von Ochrid in Mazedonien. Z. wien. ent. Ges., Vienna **38**: 62–66, 1 pl. [Lep.]

420.—Boursin, C. Ueber die systematische Stellung von "*Hiptelia*" *apfelbecki* Rbl. nebst Beschreibung einer neuen Gattung. Z. wien. ent. Ges., Vienna **38**: 66–70, 1 pl. [Lep.]

421.—Boursin, C. Eine neue Gattung der Unterfamilie Agrotinae aus dem vorderasiatisch-mediterranen Faunenkreis. Z. wien. ent. Ges., Vienna **38**: 212–217, 5 pls. [Lep.]

422.—Boursin, C. Ueber die systematische Stellung von "*Leucochlaena*" *orana* Lucas. Nebst Beschreibung einer neuen Gattung und einer neuen Art aus Französisch-Marokko. Z. wien. ent. Ges., Vienna **38**: 239–244, 1 pl. [Lep.]

Boursin, C. *see* Aubert & Boursin.

Bowden, J. *see* Tams & Bowden.

423.—Bowden, S. R. Cold storage of over-wintering pupae of Pieridae (Lep.). Entomologist, London **86**: 85–88.

424.—Bowen, T. J. & **Kilby,** B. A. Electrophoresis of locust haemolymph. Arch. int. Physiol., Liège **61**: 413–416, 2 figs. [Orth.]

425.—Box, H. E. New Crambine genera allied to *Diatraea* Guilding (Lepidoptera: Pyralidae)—I. Proc. R. ent. Soc. London (B) **22**: 178–180.

426.—Boyes, J. W. Somatic chromosomes of higher Diptera II. Differentiation of Sarcophagid species. Canad. J. Zool., Ottawa **31**: 561–576, 1 pl. 9 figs.

427.—Boyes, J. W. & **Wilkes,** A. Somatic chromosomes of higher Diptera. I. Differentiation of Tachinid parasites. Canad. J. Zool., Ottawa **31**: 125–165, 2 pls. 14 figs.

428.—[Bozhkov, D.] Können die Larven der *Anopheles maculipennis* Eier ihrer eigenen Art aufessen? [In Bulgarian with German summary.] Bull. Inst. zool. Acad. bulg. Sci., Sophia **2**: 163–188. [Dipt.]

429.—Bradley, G. A. A new species of *Cinara* (Homoptera: Aphididae) from Saskatchewan. Canad. Ent., Ottawa **85**: 431–432, 8 figs.

Bradley, G. A. *see* Hottes & Bradley.

430.—Bradley, J. D. A new species of *Casmara* Walker, 1863, from Malaya—(Lepidoptera: Oecophoridae). Ann. Mag. nat. Hist., London (12) **6**: 319–320, 1 fig.

431.—Bradley, J. D. A new species of *Harmaclona* Busck from Natal (Lep.: Arrhenophanidae). Ann. Mag. nat. Hist., London (12) **6**: 767–768, 1 fig.

432.—Bradley, J. D. A new species of *Ochsenheimeria* Huebner from Central Himalaya (Lepidoptera: Tineidae). Ann. Mag. nat. Hist., London (12) **6**: 832–833, 1 pl.

433.—Bradley, J. D. Some important species of the genus *Cryptophlebia* Walsingham, 1899, with descriptions of three new species (Lepidoptera: Olethreutidae). Bull. ent. Res., London **43**: 679–689, 2 pls.

434.—Bradley, J. D. Microlepidoptera collected in the Burren, Co. Clare, Ireland, in 1952, including a plume moth new to the British list. Ent. Gaz., London **4**: 135–140, 1 pl.

435.—Bradley, J. D. A new family assignment for *Pancalia woodiella* Curtis, 1830, and some notes on this species (Lepidoptera). Ent. Gaz., London **4**: 172–174, 2 figs.

436.—Bradley, J. D. On *Harmaclona* Busck, 1914 (Lep., Arrhenophanidae), with descriptions of a new species, of a supplementary wing-coupling device present, and some new synonymy. Entomologist, London **86**: 61–66, 1 pl.

437.—Bradley, J. D. New Microlepidoptera from Fiji. Proc. Hawaii. ent. Soc., Honolulu **15**: 109–114, 9 figs.

438.—Braesch, S. Note sur la pigmentation d'une espèce de grillon de la région de Banyuls. Vie et Milieu, Paris **3** 1952: 436–440, 2 figs. [Orth.]

439.—Brandenburg, J. Der Parasitismus der Gattung *Stylops* an der Sandbiene *Andrena vaga* Pz. Z. Parasitenk., Berlin **15**: 457–475, 6 figs. [Col., Hym.]

440.—Brandt, H. Insekten Deutschlands I. Schmetterlinge. Erster Teil. Heidelberg, Winters naturwissenschaftliche Taschenbücher Bd. 20 176 pp. 64 col. pls. 55 figs. [Lep.]

441.—Brandt, H. v. & Höhne, G. Mutationsauslösung bei *Drosophila* durch schnelle Batatron-Elektronen und chemische Agenzien. Verh. dtsch. zool. Ges., Leipzig **1951** 1952: 259–263, 2 figs. [Dipt.]

442.—Brandt, H. v. & Höhne, G. Ueber die Auslösung autosomaler Chromosomenmutationen bei *Drosophila* durch schnelle Elektronen und Röntgenstrahlen. Verh. dtsch. zool. Ges., Leipzig **1952**: 365–369, 1 fig. [Dipt.]

443.—Brauns, A. Ist die Förderung ökologischer Untersuchungen "indifferenter" und "wirtschaftlich kaum beachtenswerter" Insektenarten wirtschaftlich vertretbar? Anz. Schädlingsk., Berlin **26**: 118–119.

444.—Brauns, A. Beiträge zur Oekologie und wirtschaftlichen Bedeutung der aphidivoren Syrphidenarten (Diptera). Beitr. Ent., Berlin **3**: 278–303, 13 figs.

445.—Brauns, A. Die Typen der Stigmenverteilung bei terricolen Dipterenlarven. Zool. Anz., Leipzig **150**: 171–178, 1 fig.

446.—Brčák, J. Biozönologie der Lepidopteren des Dunkelfichtentales (Temnosmrečinová dolina) in der Hohen Tatra. [In Czech with German summary.] Biol. Sborn. slovensk. Akad., Bratislava **7** 1952 no. 3–4: 113–131, 4 figs. 3 maps.

447.—Brčák, J. Nonparasitical mortality in the progeny of some Lepidoptera. [In Czech with English summary.] Zool. ent. Listy, Brno **2**: 159–166, 4 figs.

448.—Brčák, J. & Pintera, A. Ueber einen neuen überträgbaren, aus Silonkunstgewebe verfertigten Insektenkäfig. [In Czech with German summary.] Zool. ent. Listy, Brno **2**: 209–212, 2 figs.

449.—[Breev, K. A. & Karazeeva, Z. F.] Contribution to the biology of the skin bot-fly *Oedemagena tarandi* L. [In Russian.] Parazit. Sborn. zool. Inst. Akad. Nauk SSSR, Moscow **14** 1952: 95–102. [Dipt.]

450.—Breland, O. P. Keys to the larvae of Texas mosquitoes with notes on recent synonymy II. The genus *Culex* Linnaeus. Texas J. Sci., San Marcos **5**: 114–119, 2 figs. [Dipt.]

451.—Brennan, J. M. & Harwood, R. E. A preliminary report on the laboratory colonization of the mosquito, *Culex tarsalis* Coquillett. Mosquito News, Albany, N.Y. **13**: 153–157, 1 fig. [Dipt.]

452.—Bretherton, R. F. The occurrence of double broods among moths in North-West Surrey. Ent. Gaz., London **4**: 287–295. [Lep.]

453.—Bretschneider, R. Erfolgreiche Zuchten von *Biston*-Hybriden (Lep. Geom.). Mitt. münch. ent. Ges., Munich **43**: 305–314, 2 pls.

454.—Breuning, S. Note sur les Lamiaires de Nouvelle Guinée et de quelques îles limitrophes du Musée d'Histoire Naturelle de Budapest (Coleoptera, Cerambycidae). Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4**: 95–111.

455.—Breuning, S. Nouvelles formes de Lamiaires (quatrième partie). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 8: 1–38, 1 pl. [Col.]

456.—Breuning, S. Notes systématiques sur les Longicornes de Nouvelle-Calédonie. II. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 16: 1–64. [Col.]

457.—Breuning, S. Lamiaires nouveaux de la Collection du Museo civico di Storia naturale, Genova (Coleoptera, Cerambycidae). Doriana, Genoa **1** 1952 no. 31: 1–3.

458.—Breuning, S. Verzeichnis der von Dr. J. Bechyné in Französisch Guinea im Jahre 1951 gesammelten Lamiinae (Col. Cerambycidae). Ent. Arb., Munich **4**: 1–9.

459.—Breuning, S. v. Lamiinae. Explor. Parc nat. Albert, Miss. de Witte (1933–1935), Brussels fasc. 79: 57–82. [Col.]

460.—Breuning, S. Nouveaux Lamiaires du Museé du Congo (Col. Cerambycidae). Rev. Zool. Bot. afr., Brussels **48** : 172–175.

Breuning, S. *see* Lepesme & Breuning.

461.—Brian, M. V. Species frequencies in random samples from animal populations. J. Anim. Ecol., London **22** : 57–64, 3 figs. [Collemb.]

462.—Brian, M. V. Oviposition by workers of the ant *Myrmica*. Physiol. comp., The Hague **3** : 25–36, 1 fig. [Hym.]

463.—Brian, M. V. Brood-rearing in relation to worker number in the ant *Myrmica*. Physiol. Zoöl., Chicago **26** : 355–366, 3 figs. [Hym.]

464.—Brinck, P. Anoplura from the Galapagos islands. Nytt Mag. Naturw., Oslo **88** 1951 : 246.

465.—Brinck, P. Några till Sverige importerade cerambycider. Opusc. ent., Lund **18** : 22–24. [Col.]

466.—Brinck, P. Catalogus insectorum sueciae. Additamenta. X. Plecoptera. Opusc. ent., Lund **18** : 108–109.

467.—Brinck, P. Bäcksländor. Plecoptera. Svensk Insektfauna, Stockholm **15** 1952 : 126 pp. 76 figs.

468.—Briscoe, M. S. The relation of insects and insect-borne diseases to the vegetation and environment in Liberia. Ecology, Brooklyn **33** 1952 : 187–214, 1 fig.

469.—Briseño Iragorry, L., **Vargas,** L. & **Díaz Nájera,** A. Algunos caracteres morfológicos de *Simulium amazonicum* Goeldi, 1905 (Insecta, Diptera). Rev. Inst. Salub. Enferm. trop., Mexico **13** : 243–245, 1 pl.

Brito da Cunha *see* Cunha.

Britschgi, M. B. *see* Burroughs, A. L.

470.—Brivio, C. Studi sui Necrophorini (Coleoptera, Silphidae). Natura, Milan **44** : 85–88, 2 figs.

471.—Brncic, D. Chromosomal variation in natural populations of *Drosophila guaramunu*. Z. indukt. Abstamm.- u. VererbLehre, Berlin **85** : 1–11, 1 pl. 7 figs. [Dipt.]

Brncic, D. *see* da Cunha, Brncic & Salzano.

472.—Brookes, H. M. The morphological development of the embryo of *Gryllulus commodus* Walker (Orthoptera : Gryllidae). Trans. R. Soc. S. Aust., Melbourne **75** 1952 : 150–159, 2 pls. 4 figs.

Brookes, V. J. *see* Fraenkel & Brookes.

473.—Brookman, B. & **Reeves,** W. C. New records of mosquitoes from Lower California, Mexico, with notes and descriptions (Diptera : Culicidae). Ann. ent. Soc. Amer., Columbus **46** : 225–236, 9 figs.

474.—Brooks, G. T. A new subgenus and species of *Enithares*. J. Kansas ent. Soc., Manhattan **26** : 74–75, 4 figs. [Hem.]

475.—Brooks, J. G. Check list of Australian Dryopidae. Publ. N. Qd Nat. Cl., Cairns no. 6 1951 : 1. [Col.]

476.—Bros, E. de & **Thomann,** H. Beitrag zur Schmetterlingsfauna des Bergells (Val Bregaglia), Graubünden, Schweiz (contd.). Ent. NachrBl., Vienna **5** : 1–5, 1 pl., 21–23, 1 pl. (Corrigenda by E. de Bros **5** : 51–52.) [Lep.]

Brosens, J. *see* Bergmans & Brosens.

477.—Brower, A. E. Three new species of Microlepidoptera (Olethreutidae, Glyphipterygidae, Yponomeutidae). Ann. ent. Soc. Amer., Columbus **46** : 95–98, 1 fig.

Brown, A. W. A. *see* McDonald & Brown ; Sippell & Brown.

478.—Brown, E. S. Additional records of aquatic Hemiptera from Arabia. Ann. Mag. nat. Hist., London (12) **6** : 432–433.

479.—Brown, E. S. Notes on aquatic Hemiptera from Syria and Iraq. Ann. Mag. nat. Hist., London (12) **6** : 579–600, 3 figs.

480.—Brown, E. S. Notes on the rarer British species of aquatic and semi-aquatic Hemiptera : I. Hydrometridae. Entomologist, London **86** : 240–242.

Brown, jr., F. A. *see* Fingerman & Brown ; Stephens, Fingerman & Brown.

481.—Brown, F. M. Taxonomic notes on *Oeneis uhleri* Reakirt (Lepidoptera, Satyridae). Amer. Mus. Novit., New York no. 1625 : 1–26, 8 figs.

482.—Brown, F. M. The subspecies of *Oeneis alberta* (Lepidoptera, Satyridae). Amer. Mus. Novit., New York no. 1626 : 1–21, 10 figs.

483.—Brown, F. M. The Papilios of Ecuador (Rhopalocera, Lepidoptera). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 3 : 41–60, 5 pls.

484.—Brown, V. E. Synopsis of medical entomology. Ann Arbor, Mich., Edwards Bros., Inc. viii & 219 pp. 136 figs.

485.—Brown, jr., W. L. Characters and synonymies among the genera of ants. Parts I, II. Breviora, Cambridge, Mass. no. 11 : 1–13, no. 18 : 1–8. [Hym.]

486.—Brown, jr., W. L. Revisionary notes on the ant genus *Myrmecia* of Australia. Bull. Mus. comp. Zool. Harv., Cambridge, Mass. **111** : 1–35. [Hym.]

487.—Brown, jr., W. L. The Neotropical species of the ant genus *Strumigenys* Fr. Smith : group of *mandibularis* Fr. Smith. J. New York ent. Soc. **61** : 53–59. [Hym.]

488.—Brown, jr., W. L. The Neotropical species of the ant genus *Strumigenys* Fr. Smith : group of *smithii* Forel. J. New York ent. Soc. **61** : 101–110. [Hym.]

489.—Brown, jr., W. L. A revision of the Dacetine ant genus *Orectognathus*. Mem. Qd Mus., Brisbane **13** : 84–104, 3 figs. [Hym.]

490.—Brown, jr., W. L. Notes on Australian *Podomyrma* (Hymenoptera : Formicidae). N. Qd Nat., Cairns **21** no. 104 : [3].

491.—Brown, jr., W. L. Three new ants related to *Strumigenys louisianae* Roger. Psyche, Cambridge, Mass. **60** : 1–5. [Hym.]

493.—Brown, jr., W. L. The Dacetine ant genus *Mesostruma* Brown. Trans. R. Soc. S. Aust., Adelaide **75** 1952 : 9–13, 1 fig. [Hym.]

494.—Browning, T. O. The influence of temperature and moisture on the uptake and loss of water in the eggs of *Gryllulus commodus* Walker (Orthoptera-Gryllidae). J. exp. Biol., London **30** : 104–115, 7 figs.

495.—Bruce, N. Eine neue *Mnionomus*-Art aus Afrika (Col., Cryptophagidae). Ann. Mag. nat. Hist., London (12) **6** : 75–76.

496.—Bruce, N. Coleoptera—Cryptophagidae in the British Museum. II. Ann. Mag. nat. Hist., London (12) **6** : 782–790.

497.—Bruce, N. Observations sur la nomenclature de quelques espèces de *Cryptophagus* (Col.). Opusc. ent., Lund **18** : 205–209.

Bruckart, S. M. *see* Beckman, Bruckart & Reiser.

498.—Brůčková, B. Study of the Bohemian species of the genus *Erannis* Hübner (Lep.). Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 390 : 213–221. [Lep.]

Bruijns *see* Mörzer Bruijns.

499.—Brummer, M. Collecting snow insects. [In Finnish.] Luonnon Tutk., Helsinki **56** 1952 : 15–17, 4 figs.

500.—Brundin, L. Die taxonomische Bedeutung der Genitalorgane bei den Coleopteren. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 12–21, 11 figs.

501.—Bruni, P. Attività mucinolitica di alcuni organi di *Hydrophilus piceus* allo stado adulto. Boll. Soc. ital. Biol. sper., Naples **28** (1952) : 1876–1877. [Col.]

502.—Bryant, G. E. New species of Chrysomelidae (Galerucinae) from East Africa. Ann. Mag. nat. Hist., London (12) **6** : 864–870, 8 figs. [Col.]

503.—Bryant, G. E. Ruwenzori Expedition 1934–35. Chrysomelidae. London, Brit. Mus. (Nat. Hist.) **3** : 151–164, 7 figs. [Col.]

504.—Bryant, G. E. A new species of *Epitrix* (Coleoptera Halticinae) from Western Australia. W. Aust. Nat., Perth **4** : 8–9, 1 fig.

505.—Bryce, D. Notes on the life-history of *Bibio leucopterus* Mg. (Dipt., Bibionidae). Ent. mon. Mag., London **89** : 136–137, 2 figs.

506.—Bryk, F. Lepidopteren aus dem Amazonasgebiete und aus Peru gesammelt von Dr. Douglas Melin und Dr. Abraham Roman. Ark. Zool., Stockholm (N.S.) **5** : 1–268, 9 figs.

507.—Bryk, F. *Pararge achine* (Scop.) in Ostasien. Eine Revision. Ent. Tidskr., Stockholm **74** : 38–45, 1 fig. [Lep.]

508.—Bryk, F. *Papilio rex alinderi* Bryk fa. *holmi* (forma nova) (Lepidoptera). Ein kleiner Beitrag zur Frage des heterotropen Mimetismus. Ent. Tidskr., Stockholm **74** : 46–50.

509.—Bryk, F. Entspricht die heute übliche Spannstellung der präparierten Schmetterlinge den wissenschaftlichen Forderungen ? (Lepidoptera). Ent. Tidskr., Stockholm **74** : 69–75, 1 fig.

510.—Bryk, F. Ueber eine Unterdrückung der Flügelzeichnung bei unserem Schwalbenschwanze (Lep. Papilion.). Opusc. ent., Lund **18** : 65–67, 1 fig.

511.—Bua, G. 1° contributo alla conoscenza dei Crisomelidi del genere *Arima* Chap. Cenni morfologici e biologici sull'*Arima marginata* Fabr. e descrizione dell'*Arima maritima* sp. n. Boll. Lab. Ent. agr. Portici **12** : 154–188, 15 figs. [Col.]

512.—Buchholz, K. F. Eine neue *Rhodopygia*-Art (Libellulinae, Odonata). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 10 : 1–8, 2 pls.

513.—Buchner, R. Beeinflussung der Grösse der Arbeitsbiene durch Raum-und Nahrungsmangel während der Larvenzeit. Arch. EntwMech. Org., Berlin **146** : 544–579, 8 figs. [Hym.]

514.—Buck, H. Eine neue Art der Brutfürsorge bei einem Rüsselkäfer (*Polydrosus mollis* Ström.) (Vorläufige Mitteilung). Jh. Ver. vaterl. Naturk. Württemb., Stuttgart **108** : 66–70, 3 figs. [Col.]

515.—Buck, J. B. & **Keister,** M. L. Cutaneous and tracheal respiration in the *Phormia* larva. Biol. Bull., Lancaster, Pa. **105** : 402–411, 2 figs. [Dipt.]

516.—Bückmann, D. Ueber den Verlauf und die Auslösung von Verhaltensänderungen und Umfärbungen erwachsener Schmetterlingsraupen. Biol. Zbl., Leipzig **72** : 276–311, 6 figs. [Lep.]

517.—Buddenbrock, W. von. Vergleichende Physiologie. Band 2 : Nervenphysiologie. Basle, Birkhäuser 396 pp. 185 figs.

518.—Buei, K. Experimental observations on the life cycle and ovipositing activity of the housefly, *Musca domestica vicina* Macq. [In Japanese with English summary.] Botyu-Kagaku, Kyoto **17** 1952 : 133–138, 4 figs. [Dipt.]

Buen *see* De Buen.

519.—Buhr, H. Ein für Deutschland neuer Käfer : *Tanysphyrus callae* Voss. NachrBl. bayer. Ent., Munich **2** : 17–20, 1 fig. [Col.]

520.—Buonocore, C. Azione della luce sulla nascita del *Bombyx mori* L. Ann. Sper. agrar., Rome (N.S.) **7** : 1509–1529. [Lep.]

521.—Buonomini, G. & **Mariani,** M. World Anophelines belonging to the subgenus *Maculipennia* Buonomini e Mariani, 1946. A revision of Anophelines of the so-called "*maculipennis* complex". Riv. Malariol., Rome **32** : 173–188. [Dipt.]

522.—Burchfield, H. P., **Redder,** A. M., **Storrs,** E. E. & **Hilchey,** J. D. Improved methods for rearing larvae of *Aedes aegypti* (L.) for use in insecticide bioassay. Contr. Boyce Thompson Inst., Yonkers, N.Y. **17** : 317–331, 3 figs. [Dipt.]

523.—Büren, G. v. Der Inkwilersee. Eine limnologische Studie. Mitt. naturf. Ges. Solothurn **16** (1948–1951) [1952] no. 3 47 pp.

524.—Burgers, A. C. J. Studies on the fauna of Curaçao and other Caribbean Islands. Vol. IV : no. 21. The fruitfly *Anastrepha serpentina* in Curaçao. Natuurwet. Stud. Suriname, The Hague no. 8 : 149–153, 1 fig. [Dipt.]

Burges, H. D. *see* Howe & Burges.

525.—Burks, B. D. The mayflies, or Ephemeroptera, of Illinois. Bull. Illinois nat. Hist. Surv., Urbana **26** : 1–216, 395 figs.

526.—Burks, B. D. The genus *Metacolus* in North America (Hymenoptera, Chalcidoidea). Proc. ent. Soc. Wash. **55** : 44.

527.—Burla, H. & **Pavan,** C. The *calloptera* group of species (*Drosophila*, Diptera). Rev. brasil. Biol., Rio de Janeiro **13** : 291–314, 31 figs.

528.—Burlini, M. Une nouvelle espèce de *Cryptocephalus* du Maroc : *Cryptoc. kocheri* Burlini (Coleoptera Chrysomelidae). C.R. Soc. Sci. nat. Maroc, Rabat **1953** : 73–75, 3 figs.

529.—Burmann, K. War 1951 ein Wanderjahr für *Codonia pupillaria* Hb. ? (Lepidoptera, Geometridae). Ent. NachrBl., Vienna **5** : 26–28.

530.—Burmann, K. Aus dem Leben von *Semioscopis anella* Hb. (Lepidoptera, Gelechiidae). Z. wien. ent. Ges., Vienna **38** : 27–30.

531.—Burmann, K. Die Entwicklung von *Endrosa*-Arten in zwei getrennten Stämmen (Lepidoptera, Arctiidae). Z. wien. ent. Ges., Vienna **38** : 72–75, 2 figs.

532.—Burmann, K. Nordtiroler Wanderfalterbeobachtungen 1952. Z. wien. ent. Ges., Vienna **38** : 270–274. [Lep.]

533.—Burmann, K. *Pammene tomiana* Z. (Lepidoptera, Tortricidae). Z. wien. ent. Ges., Vienna **38** : 333–339, 1 pl.

534.—Burnett, T. Effects of temperature and parasite density on the rate of increase of an insect parasite. Ecology, Brooklyn **34** : 322–328, 2 figs. [Hym.]

535.—Burr, M. "Burnt" grasshoppers. Ent. Rec., Bishop's Stortford, Herts **65** : 224–225. [Orth.]

536.—Burrau, N. Ueber die schwedischen Formen von *Polyommatus chiron* Rott. (Lep. Rhop.). Opusc. ent., Lund **18** : 116–121, 1 pl. 1 fig.

537.—Burroughs, A. L. Sylvatic plague studies. X. Survival of rodent fleas in the laboratory. With the technical assistance of M.B. Britschgi. Parasitology, London **43** : 35–48. [Siphonapt.]

538.—Burton, G. J. Some techniques for mounting mosquito eggs, larvae, pupae and adults on slides. Mosquito News, Albany, N.Y. **13** : 7–15. [Dipt.]

539.—Burton, G. J. An *Anopheles quadrimaculatus* larva with three inner clypeal hairs. Mosquito News, Albany, N.Y. **13** : 144, 1 fig. [Dipt.]

540.—Burton, G. J. Photomicrography of mosquitoes with the single-lens reflex camera. Mosquito News, Albany, N.Y. **13** : 248–252, 3 figs. [Dipt.]

541.—Busnel, M. C. Contribution à l'étude des émissions acoustiques des Orthoptères. 1er mémoire. Recherches sur les spectres de fréquence et sur les intensités. Ann. Epiphyt., Paris **4** : 333–421, 55 figs.

542.—Busnel, M.-C., **Degrois,** M. & **Busnel,** R.-G. Variations des stridulations de *Locusta migratoria*, mâle, selon la patte utilisée par l'insecte. Physiol. comp., The Hague **3** : 18–24, 2 pls. [Orth.]

543.—Busnel, R.-G. & **Loher,** W. Recherches sur le comportement de divers Acridoidea mâles soumis à des stimuli acoustiques artificiels. C.R. Acad. Sci., Paris **237** : 1557–1559, 1 fig. [Orth.]

Busnel, R.-G. *see* Busnel, M.-C., Degrois & Busnel; Polonovski, Alcantara & Busnel.

544.—Busse, K. Beobachtungen an der Ilexminierfliege *Phytomyza ilicis* Curtis (Diptera, Agromyzidae) und ihrem Parasiten *Opius ilicis* Nixon (Hymenoptera, Braconidae). Ent. Mitt., Hamburg no. 3 : 1–15, 2 pls. 1 fig.

Butler, J. M. *see* Grundmann & Butler.

545.—Büttiker, W. W. G. *Docophorulus priniae*, a new species of Mallophaga from *Prinia flavicans* (Priniidae, Aves). Acta trop., Basle **10** : 348, 3 figs.

546.—Buxton, P. A. & **Barnes,** H. F. British Diptera associated with fungi. I. Gall midges (Cecidomyidae) reared from the larger fungi. Proc. R. ent. Soc. London (B) **22** : 195–200, 1 fig.

Buxton, P. A. *see* Weitz & Buxton.

547.—Bytinski-Salz, H. The zoogeography of the ants in the Near East. Rev. Fac. Sci. Univ. Istanbul (B) **18** : 67–74. [Hym.]

548.—Callan, E. McC. Sawflies (Hym., Tenthredinidae and Argidae) from Trinidad, British Guiana and Venezuela. Ent. mon. Mag., London **89** : 126.

549.—Callan, E. McC. Observations on the species of *Pachyzancla* Meyrick (Lep., Pyraustidae) in Trinidad. Ent. mon. Mag., London **89** : 160–161.

550.—Callot, J. Notes faunistiques sur quelques espèces de moustiques. Bull. Ass. philom. Als. Lorr., Strasbourg **9** 1950 : 39–40. [Dipt.]

551.—Callot, J. Notes faunistiques sur quelques espèces de moustiques et de Nématocères piqueurs (suite). Bull. Ass. philom. Als. Lorr., Strasbourg **9** 1951 : 72–73. [Dipt.]

552.—Calvert, P. P. New taxonomic entities in Neotropical Aeshnas (Odonata: Aeshnidae) II. Ent. News, Lancaster, Pa. **64** : 205–207.

553.—Cameron, E. Some new and improved methods for demonstrating the cockroach. Proc. roy. Soc. London (A) **28** : 41–44, 2 pls. [Orth.]

554.—Cameron, M. New species of Staphylinidae (Col.) from French West Africa. Bull. Inst. franç. Afr. noire, Dakar **15** : 519–521.

555.—Cameron, M. L. Secretion of an orthodiphenol in the corpus cardiacum of the insect. Nature, London **172** : 349–350. [Orth.]

556.—Campau, E. J., **Baker,** G. J. & **Morrison,** F. D. Rearing stable fly for laboratory tests. J. econ. Ent., Menasha **46** : 524. [Dipt.]

557.—Campbell, I. M. Morphological differences between the pupae and the egg clusters of *Choristoneura fumiferana* (Clem.) and *C. pinus* Free. (Lepidoptera : Tortricidae). Canad. Ent., Ottawa **85** : 134–135, 2 figs. (1 col.)

558.—Camping, M. W. Bijdrage tot de kennis van de Macrolepidoptera van Vlieland. Ent. Ber., Amsterdam **14** : 273–279, 1 map.

559.—Camping, M. W. Enkele kweekervaringen. Ent. Ber., Amsterdam **14** : 359–360.

560.—Campos R., F. Las moscas (Brachycera) del Ecuador. Rev. ecuator. Hig. Med. trop., Guayaquil **8-9** 1951–1952 [? 1953] : 99–106. [Dipt.]

561.—Campos S., L. Notas sobre Taquinidos chilenos I (Dipt., Tachinidae). Agric. tecn., Chile **13** : 24–31.

562.—Camposano, A. & **Illuminati,** G. Simbiosi ereditaria negli insetti ; suo meccanismo negli afidi. Boll. Ist. Path. Libro, Rome **5** 1946 : 33–44, 2 pls. 3 figs. [Hem.]

563.—Camras, S. Notes on Neotropical *Zodion* and *Parazodion* (Diptera : Conopidae). Ann. Mag. nat. Hist., London (12) **6** : 395–399.

564.—Camras, S. A review of the genus *Myopa* in North America (Diptera : Conopidae). Wasmann J. Biol., San Francisco **11** : 97–114.

565.—Canning, E. U. A new microsporidian, *Nosema locustae* n. sp., from the fat body of the African migratory locust, *Locusta migratoria migratorioides* R. & F. Parasitology, Cambridge **43** : 287–290, 20 figs. [Orth.]

566.—Capelle, K. J. A revision of the genus *Loxocera* in North America with a study of geographical variation in *L. cylindrica* (Diptera, Psilidae). Ann. ent. Soc. Amer., Columbus **46** : 99–114, 2 pls. 2 maps.

567.—Capener, A. L. Some Membracids from West Africa, including descriptions of a new genus and eight new species. J. ent. Soc. S. Afr., Pretoria **16** : 36–50, 32 figs. [Hem.]

568.—Capps, H. W. A correction in the synonymy of the cabbage webworm (*Hellula undalis* (F.)) (Lepidoptera : Pyraustidae). Bull. S. Calif. Acad. Sci., Los Angeles **52** : 46–47, 1 pl.

569.—Capra, F. Odonati del Lago di Viverone in Piemonte. Boll. Soc. ent. ital., Genoa **83** : 20–22.

Capriles *see* Maldonado Capriles.

Carasso, N. *see* Maillet & Carasso.

570.—Carayon, J. Organe de Ribaga et fécondation hémocoelienne chez les *Xylocoris* du groupe *galactinus* (Hemipt. Anthocoridae). C.R. Acad. Sci., Paris **236** : 1099–1101, 2 figs.

571.—Carayon, J. Existence d'un double orifice génital et d'un tissu conducteur des spermatozoïdes chez les Anthocorinae (Hemipt. Anthocoridae). C.R. Acad. Sci., Paris **236** : 1206–1208, 2 figs.

572.—Carayon, J. Organe de Ribaga et fécondation chez un Hémiptère Cimicidé du Cambodge : *Aphraniola orientalis* Ferris et Usinger. Rev. franç. Ent., Paris **20** : 139–146, 3 figs.

Carè, E. *see* Grandori & Carè.

573.—Carl, G. C. Limnobiology of Cowichan Lake, British Columbia. J. Fish. Res. Bd Can. **9** : 417–449, 11 figs.

Carlgren, G. *see* Rydén & Carlgren.

Carlo *see* De Carlo.

Carlsen, H. *see* Precht & Carlsen.

574.—Carlson, J. G., **Harrington,** N. G. & **Gaulden,** M. E. Mitotic effects of prolonged irradiation with low-intensity gamma rays on the *Chortophaga* neuroblast. Biol. Bull., Lancaster, Pa. **104** : 313–322, 5 figs. [Orth.]

575.—Carne, P. B. The problem of type distribution in Australian entomology. Aust. J. Sci., Melbourne **15** : 109–112.

576.—Carneiro Ribeiro, J. H. Sôbre um inimigo do *Bidens pilosus*. Agronomia, Rio de Janeiro **12** no. 2 : 51–53, 3 figs.

577.—Carpenter, F. M. The geological history and evolution of insects. Amer. Scient., Lancaster, Pa. **41** : 256–270, 7 figs.

578.—Carpenter, F. M. The biology of *Brachypanorpa* (Mecoptera). Psyche, Cambridge, Mass. **60** : 28–36, 1 pl. 1 fig.

579.—Carpenter, G. D. H. The genus *Euploea* (Lep. Danaidae) in Micronesia, Melanesia, Polynesia and Australia. A zoo-geographical study. Trans. zool. Soc. London **28** : 1–84, 9 pls. 1 map.

Carpenter, S. J. *see* Galindo, Carpenter & Trapido.

580.—Carriker, jr., M. A. Neotropical miscellany no. VI. New genus and species of Mallophaga. Florida Ent., Gainesville **36** : 151–160, 11 figs.

581.—Carriker, jr., M. A. Studies in Neotropical Mallophaga. XII. Parts 1, 2. Lice of the Tinamous. Rev. brasil. Biol., Rio de Janeiro **13** : 209–224, 23 figs., 325–346, 32 figs.

582.—Carson, H. L. The effects of inversions in crossing over in *Drosophila robusta*. Genetics, Lancaster, Pa. **2** : 168–186, 2 figs. [Dipt.]

583.—Carthy, J. D. The orientation of *Acanthomyops niger* and *Acanthomyops fuliginosus*. Abstr. Diss. Univ. Cambridge **1950–51** : 28–29. [Hym.]

584.—Cartwright, O. L. Scarabaeid beetles of the genus *Bradycinetulus* and closely related genera in the United States. Proc. U.S. nat. Mus., Washington **103** no. 3318 : 95–120, 1 pl. 16 figs. [Col.]

585.—Carvalho, J. C. M. Neotropical Miridae, LXIII : Genus *Knightonia* Carvalho & Drake with description of a new species (Hemiptera). An. Acad. bras. Ciênc., Rio de Janeiro **25** : 171–173, 4 figs.

586.—Carvalho, J. C. M. Neotropical Miridae, L : On the present generic assignment of the species in the Biologia centrali americana (Hemiptera). Bol. Mus. nac. Rio de J. (N.S.) Zool. no. 118 1952 : 1–17.

587.—Carvalho, J. C. M. A new species of *Bothynotus* from Florida (Hemiptera : Miridae). Florida Ent., Gainesville **36** : 161–163, 1 fig.

588.—Carvalho, J. C. M. Sur les Miridae de Madagascar (Hémiptères). Mém. Inst. sci. Madagascar, Tananarive (E) **3** : 41–51, 4 figs.

589.—Carvalho, J. C. M. Neotropical Miridae, LVIII–LX, LXII, LXVI, LXVIII. Rev. brasil. Biol., Rio de Janeiro **13**: 33–40, 20 figs., 77–86, 17 figs., 113–119, 10 figs., 197–201, 12 figs., 265–270, 7 figs., 347–353, 21 figs. [Hem.]

590.—Carvalho, J. C. M. & **Sailer,** R. I. Neotropical Miridae, XLVII—the genus *Ofellus* Distant, 1883, with descriptions of three new species (Hemiptera). Proc. ent. Soc. Wash. **55**: 234–238, 12 figs.

Carvalho *see* Luna de Carvalho.

591.—Caspers, H. Die Bodentierwelt und Biologie des Hamburger Alsterbeckens und der Stadtkanäle (Quantitative Untersuchungen zur Kennzeichnung eines Stadtsees). Mitt. hamburg. zool. Mus. **52**: 9–50, 18 figs.

592.—Cassagnau, P. Faune française des Collemboles. I. Quelques nouveaux Poduromorphes méridionaux. Bull. Soc. Hist. nat. Toulouse **87** 1952: 305–312, 4 figs.

593.—Cassagnau, P. Faune française des Collemboles. IV. Un nouveau genre de Sminthuridae: *Stenognathellus* n. g. Bull. Soc. zool. France, Paris **78**: 226–228, 1 fig.

594.—Cassagnau, P. Faune française des Collemboles. II. Anurophoriens de haute montagne. Rev. franç. Ent., Paris **20**: 150–156, 3 figs.

595.—Cassagnau, P. Sur le régime alimentaire des *Friesea* Dalla Torre (Collemboles Poduromorphes). Vie et Milieu, Paris **3** 1952: 304–305, 2 figs.

596.—Cassagnau, P. & **Delamare-Deboutteville,** C. Un nouveau *Lepidocyrtinus* italien (Collembole). Boll. Soc. ent. ital., Genoa **83**: 110–112, 4 figs.

597.—Castellani, O. Primo contributo alla conoscenza della fauna entomologica della Lucania. Boll. Ass. romana Ent., Rome **6** 1951: II, 15–16, 20–III, 27–28.

598.—Castellani, O. Quinto e sesto contributi alla conoscenza della fauna odonatologica d'Italia. Boll. Ass. romana Ent., Rome **6** 1951: 9–12; **8**: 39–41.

599.—Castellani, O. Primo contributo alla conoscenza della fauna entomologica della Sila (Calabria). Boll. Ass. romana Ent., Rome **7** 1952: 9–13, 1 map.

600.—Castellani, O. Contributo alla fauna emitterologica d'Italia. Boll. Ass. romana Ent., Rome **7** 1952: 15–16; **8**: 1–11.

601.—Castellani, O. Primo contributo alla conoscenza della fauna entomologica della Catena Costiera (Calabria). Boll. Ass. romana Ent., Rome **7** 1952: 20–25.

602.—Castillo, J. del, **Hoyle,** G. & **Machne,** X. Neuromuscular transmission in a locust. J. Physiol., London **121**: 539–547, 6 figs. [Orth.]

603.—Castro, L. E. de. Estudo comparativo das cerdas cuneiformes das pernas dos Drosofilídeos (Diptera). Rev. brasil. Biol., Rio de Janeiro **13**: 363–368, 18 figs.

Castro *see* Ruiz Castro.

604.—Cazier, M. A. A review of the Scarab genus *Acoma* (Coleoptera, Scarabaeidae). Amer. Mus. Novit., New York no. 1624: 1–13.

605.—Cerruti, M. Segnalazione di due specie di Staphylinidae (Coleopt.) nuove per l'Europa. Boll. Soc. ent. ital., Genoa **83**: 70.

606.—Cerruti, M. Studi sugli Staphylinidae (Coleoptera) I Contributo. Morfologia dell'endofallo, in attività fisiologica, di *Quedius picipennis molochinus* Gravh., *Philonthus aeneus* Rossi e *Othius punctulatus* Goeze. Redia, Florence **37** 1952: 163–166, 1 fig.

607.—Cerruti, M. Note teratologiche su Coleotteri. Redia, Florence **37** 1952: 175–178, 3 figs.

608.—Cerruti, M. Descrizione delle larve di due Stafilinidi dorilofili dell'Africa orientale (Coleoptera Staphylinidae). Riv. Biol. colon., Rome **12** (1952): 49–56, 2 figs.

609.—Cerruti, M. & **Patrizi,** S. Diagnosi preliminare di due nuove specie di Bathysciinae cavernicole del Lazio (Coleoptera Catopidae). Boll. Soc. ent. ital., Genoa **82** (1952): 92–93.

Chadbourne, D. S. *see* Reiser & others.

610.—Chadwick, L. E., **Lovell,** J. B. & **Egner,** V. E. The effect of various suspension media on the activity of cholinesterase from flies. Biol. Bull., Lancaster, Pa. **104** : 323–333, 1 fig. [Dipt.]

Chadwick, L. E. *see* Barnhart & Chadwick.

611.—Chagnon, G. Etudes préliminaires sur les Diptères du Québec. Contr. Inst. Biol. Univ. Montréal no. 32 1952 : 1–36, 24 figs.

612.—Chambers, V. H. The larva of *Pristiphora fuscata* Benson (Hym., Tenthredinidae). Ent. mon. Mag., London **89** : 231–232, 1 fig.

613.—Champy, C. & **Coujard-Champy,** C. Sur la disposition particulière de la chromatine dans les cellules à bâtonnets et d'autres cellules visuelles. Arch. Zool. exp. gén., Paris **90** Notes et Rev. : 59–63, 3 figs.

614.—Chandler, H. P. A new species of *Climacia* from California (Sisyridae, Neuroptera). J. Wash. Acad. Sci. **43** : 182–184, 5 figs.

Chandra, A. *see* Roonwal, Mathur, Bhasin, Singh, Pant, Chandra, Katiyar & Mathur.

615.—Chandy Kurian. Descriptions of new and records of some known parasitic Hymenoptera from India. Agra Univ. J. Res. (Sci.) **2** : 113–124, 23 figs.

616.—Chandy Kurian. Description of a new Chalcid parasite of midge of echinate gall of mango leaf. Agra Univ. J. Res. (Sci.) **2** : 241–246, 10 figs. [Hym.]

Chandy Kurian *see* Mani & Chandy Kurian.

617.—Channa Basavanna, G. P. Observations on the biology of *Scelio hieroglyphi* Timberlake (Scelionidae, Hymenoptera). Curr. Sci., Bangalore **22** : 279.

618.—Channa Basavanna, G. P. Phoresy exhibited by *Lepidoscelio viatrix* Brues (Scelionidae, Hymenoptera). Indian J. Ent., New Delhi **15** : 264–266, 1 fig.

Channa Basavanna, G. P. *see* Puttarudriah & Channa Basavanna.

619.—Chao, Hsiu-fu. The external morphology of the dragonfly *Onychogomphus ardens* Needham. Smithson. misc. Coll., Washington **122** no. 6 : 1–56, 50 figs. [Odon.]

Chapman, H. C. *see* Drake & Chapman.

620.—Chapman, J. A. Ecological notes on *Grylloblatta* in Montana. Proc. Montana Acad. Sci., Missoula **13** : 39–41. [Orth.]

621.—Chapman, J. A. & **Craig,** R. An electrophysiological approach to the study of chemical sensory reception in certain insects. Canad. Ent., Ottawa **85** : 182–189, 11 figs.

622.—Charles, L. J. & **Senevet,** G. The distribution of *Anopheles albimanus* in the Caribbean Islands. Amer. J. trop. Med. Hyg., Baltimore **2** : 1109–1115, 1 map. [Dipt.]

Chatterjee, S. N. *see* Mukerji & Chatterjee.

Chatterji, S. *see* Narayanan & Chatterji.

Chattoraj, A. N. *see* Verma & Chattoraj.

Chaudhuri *see* Ray Chaudhuri.

623.—Chauvin, R. Déterminisme du polymorphisme social chez les abeilles. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952 : 117–122. [Hym.]

624.—Chauvin, R. Progrès récents de la physiologie de l'insecte. I–VII. Rev. Zool. agric., Talence **51** 1952 : 102–106 ; **52** : 14–19, 54–60, 83–90, 131–148.

Cheema, P. S. *see* Ayyappa & Cheema.

625.—Cheesman, E. Insects indomitable. London, G. Bell and Sons, Ltd. 1952 205 pp. 17 figs. 1 frontisp.

626.—Cheesman, L. E. Parasitic Hymenoptera of New Caledonia and Lifu Island, Loyalty Islands. Ann. Mag. nat. Hist., London (12) **6** : 625–636, 12 figs.

627.—Cheesman, L. E. Bees of New Caledonia. Ann. Mag. nat. Hist., London (12) **6** : 713–716, 2 figs. [Hym.]

628.—Chen, L. T. On the occurrence of lead boring insects in Formosa. [In Japanese with English summary.] Agric. Res., Taipeh **1** 1950 no. 4 : 33–40, 6 figs.

630.—[**Chereshnev,** N. A.] New data on the black whiskered stomach botfly *Gastrophilus nigricornis* Löw. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **88** : 169–172, 4 figs. [Dipt.]

631.—[**Chetyrkina,** I. A.] Acrididae of the forest outskirts in the valley of the river Ural. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952 : 133–141. [Orth.]

632.—Chiarelli de Gahan, A. El bicho quemador. Alm. Minist. agric., Buenos Aires **26-27** 1951 : 139–142, 5 figs.

Chigarev, G. A. *see* Beĭ-Bienko, Bogdanov-Kat'kov, Fal'kenshteĭn, Chigarev & Shchegolev.

633.—Chilson, L. M. Insect records from Johnston Island. Proc. Hawaii. ent. Soc., Honolulu **15** : 81–84.

634.—Chin, C. T. High temperature coefficient of enzymic activity of the muscle of the American cockroach, *Periplaneta americana*. Arch. Biochem. Biophys., New York **31** 1951 : 333–335. [Orth.]

635.—China, W. E. A new subfamily of Microphysidae (Hemiptera-Heteroptera). Ann. Mag. nat. Hist., London (12) **6** : 67–74, 3 figs.

636.—China, W. E. Two new species of the genus *Cyrtopeltis* (Hemiptera) associated with sundews in Western Australia. W. Aust. Nat., Perth **4** : 1–8, 3 figs.

637.—China, W. E. & **Miller,** N. C. E. A new genus of Nabidae (Hemiptera-Heteroptera). Eos, Madrid **29** : 115–117, 1 fig.

638.—Chino, H. Histochemical studies on phosphatases of prothoracic glands and corpora allata of silk worm, *Bombyx mori* L. [In Japanese with English summary.] Zool. Mag., Tokyo **62** : 318–322, 10 figs. [Lep.]

Chino, H. *see* Fukaya, Chino & Inoue ; Yushima & Chino.

Chivers-Wilson, V. S. *see* Hutcheon & Chivers-Wilson.

639.—Chorabik, S. Anatomy and histology of the digestive canal in the weevil *Strophosomus capitatus* Deg. (Coleoptera, Curculionidae). [In Polish with English summary.] Bull. ent. Pologne, Wrocław **21** (1951) 1952 : 1–29, 17 figs.

640.—Chovnick, A. & **Fox,** A. S. Immunogenetic studies of pseudoallelism in *Drosophila melanogaster*. I. Antigenic effects of the lozenge pseudoalleles. Proc. nat. Acad. Sci., Washington **39** : 1035–1043. [Dipt.]

641.—Chowdhury, S. A *Trichoderma* disease of honey bees. Curr. Sci., Bangalore **22** : 348. [Hym.]

642.—Christensen, P. J. H. The embryonic development of *Cochlidion limacodes* Hufn. (Fam. Cochlididae, Lepidoptera). A study on living dated eggs. Biol. Skr., Copenhagen **6** no. 9 : 1–46, 9 pls. 9 figs.

643.—Christian, P. J. A revision of the North American species of *Typhlocyba* and its allies (Homoptera, Cicadellidae). Univ. Kansas Sci. Bull., Lawrence **35** : 1103–1277, 20 pls.

644.—Chuchuy, M. E. Un insecto perjudicial del malvón *Sibovia sagata* (Sign.). Acta zool. lilloana, Tucuman **10** 1952 : 99–104, 4 figs. [Hem.]

Chudoba, S. *see* Noskiewicz & Chudoba.

645.—Chûjô, M. Description d'une espèce nouvelle de *Zeugophora* du Japon (Coleoptera, Chrysomelidae). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 9 : 1–3, 1 fig.

646.—Chûjô, M. A taxonomic study on the Chrysomelidae (Insecta-Coleoptera) from Formosa. Parts V, VI. Tech. Bull. Kagawa agric. Coll., Hiraicho **4** 1952 : 32–49, 73–91, 16 figs., 1953 : 237–249, 11 figs.

647.—Chûjô, M. A taxonomic study on the Chrysomelidae with special reference to the fauna of Formosa. Tech. Bull. Kagawa agric. Coll., Hiraicho **5** : 19–36, 121–136, 7 pls. [Col.]

648.—Chûjô, M. & Nakane, T. Mordellidae of Shikoku, Japan (Insecta-Coleoptera). Mushi, Fukuoka **25** : 17–24, 1 pl.

649.—Ciampolini, M. La *Pseudonapomyza dianthicola* Venturi (Dipt. Agromyzidae) (Note sulla morfologia, sulla biologia e sui mezzi di lotta). Redia, Florence **37** 1952 : 69–120, 33 figs.

650.—Ciampolini, M. La comparsa del *Macrocerococcus superbus* Leon. (Hemiptera Coccoidea) in Toscana su nuove piante ospiti. Redia, Florence **37** 1952 : 327–331, 1 fig.

651.—Clark, A. M. The mutagenic activity of dyes in *Drosophila melanogaster*. Amer. Nat., New York **87** : 295–305, 3 figs. [Dipt.]

652.—Clark, A. M. & Beiser, jr., W. C. Effects of methyl *bis* (beta-chloroethyl) amine hydro-chloride on haploid and diploid embryos of *Habrobracon*. Nature, London **171** : 178–179. [Hym.]

Clark, D. P. *see* Birch & Clark.

653.—Clark, E. W. & Craig, R. The calcium and magnesium content in the hemolymph of certain insects. Physiol. Zool., Chicago **26** : 101–107.

Clark, E. W. *see* Ball & Clark.

654.—Clark, G. C. & Dickson, C. G. C. Some South African butterflies. Cape Town, Longmans Green & Co. 1952 iv & 44 pp. 10 pls. (4 col.) 3 figs. [Lep.]

655.—Clark, L. R. The ecology of *Chrysomela gemellata* Rossi and *C. hyperici* Forst., and their effect on St. John's wort in the Bright district, Victoria. Aust. J. Zool., Melbourne **1** : 1–69, 3 pls. 3 figs. [Col.]

656.—Clarke, C. A. & Knudsen, J. P. A hybrid swallowtail. Ent. Rec., Bishop's Stortford, Herts **65** : 76–80, 8 pls. [Lep.]

657.—Clarke, C. A. & Sheppard, P. M. Further observations on hybrid swallowtails. Ent. Rec., Bishop's Stortford, Herts **65** suppl. no. 9 : 1–12, 8 pls. [Lep.]

658.—Clarke, J. F. G. The moths of the genus *Coptotelia* Zeller (Lepidoptera : Oecophoridae). Acta zool. lilloana, Tucuman **11** 1951 : 335–352, 5 pls.

659.—Clarke, J. F. G. New species of Olethreutidae from Illinois (Lepidoptera). J. Wash. Acad. Sci. **43** : 226–231, 18 figs.

660.—Clarke, J. F. G. Notes, new synonymy, and new assignments in American Gelechiidae. J. Wash. Acad. Sci. **43** : 317–320. [Lep.]

Clausen, M. B. *see* Richards, Clausen & Smith.

661.—Clay, T. Systematic notes on the Piaget collections of Mallophaga. Part V. Ann. Mag. nat. Hist., London (12) **6** : 641–657.

662.—Clay, T. Revisions of the genera of Mallophaga.—I. The *Rallicola*-complex. Proc. zool. Soc. London **123** : 563–587, 1 pl. 57 figs.

Clay, T. *see* Hopkins & Clay.

663.—Clément, G. Recherches sur le polymorphisme de *Psammotermes hybostoma* Desneux. Ann. Sci. nat., Paris Zool. (11) **14** (1952) : 95–116, 1 pl. 21 figs. [Isopt.]

664.—Clément, G. Sur la différenciation d'ovocytes dans les testicules des "neutres" d'*Anacanthotermes ochraceus*. C.R. Acad. Sci., Paris **236** 1095–1096. [Isopt.]

665.—Cleu, H. Biogéographie et peuplement entomologique du Bassin de l'Ardèche. Ann. Soc. ent. France, Paris **122** : 1–74.

666.—Cloudsley-Thompson, J. L. Studies in diurnal rhythms. III. Photoperiodism in the cockroach *Periplaneta americana* (L.). Ann. Mag. nat. Hist., London (12) **6** : 705–712, 2 figs. [Orth.]

667.—Cloudsley-Thompson, J. L. Diurnal rhythms of locomotory activity in isolated migratory locusts. Ent. mon. Mag., London **89** : 233–235, 1 fig. [Orth.]

668.—Cloudsley-Thompson, J. L. The significance of fluctuating temperatures on the physiology and ecology of insects. Entomologist, London **86** : 183–189.

669.—Cloudsley-Thompson, J. L. Studies in diurnal rhythms. IV. Photoperiodism and geotaxis in *Tenebrio molitor* L. (Coleoptera : Tenebrionidae). Proc. R. ent. Soc. London (A) **28** : 117–132, 4 figs.

670.—Cobben, R. H. Bemerkungen zur Lebensweise einiger holländischen Wanzen (Hemiptera-Heteroptera). Tijdschr. Ent., Amsterdam **96**: 169–198, 10 figs.

671.—Cobos, A. Nuevas especies de Coleópteros Phytophagoidea de la provincia de Almeria (sudeste español). Boll. Ass. romana Ent., Rome **7** 1952: 1–8, 5 figs.

672.—Cobos, A. Nota acerca de la presencia del *Buprestis* (*Cypriacis*) *splendens* F., en España y de la validez específica del mismo. Boll. Ass. romana Ent., Rome **8**: 27–33, 1 pl. 2 figs. [Col.]

673.—Cobos, A. Rectificaciones sinonímicas sobre Bupréstidos (Coleopt.) de Canarias. Boll. Ass. romana Ent., Rome **8**: 37–38.

674.—Cobos, A. Notas sobre el género *Anthaxia* Esch., y descripciones de especies nuevas de la fauna paleártica (Coleopt. Buprestidae). Boll. Soc. ent. ital., Genoa **83**: 99–104, 3 figs.

675.—Cobos, A. Revisión de los *Julodis* Esch., de la península ibérica (Coleoptera Buprestidae). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 12: 1–16, 2 figs.

676.—Cobos, A. Nuevas formas de *Paracylindromorphus* (Col. Buprestidae) de África meridional. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 37: 1–20, 10 figs.

677.—Cochran, D. G., **Grayson,** J. M. & **Levitan,** M. Chromosomal and cytoplasmic factors in transmission of DDT resistance in the German cockroach. J. econ. Ent., Menasha **45** (1952): 997–1001, 3 figs. [Orth.]

678.—Cockayne, E. A. Aberrations of British Macrolepidoptera. Ent. Rec., Bishop's Stortford, Herts **65**: 33–34, 1 pl., 81, 1 pl.

679.—Cockayne, E. A. Some forgotten varietal names. Ent. Rec., Bishop's Stortford, Herts **65**: 65–66. [Lep.]

680.—Cockayne, E. A. Aberrations of British Geometridae. Ent. Rec., Bishop's Stortford, Herts **65**: 161–169, 1 pl., 241–244, 1 pl. [Lep.]

681.—Cockayne, E. A. Lectotypes of one subspecies and two aberrations of British Geometridae. Ent. Rec., Bishop's Stortford, Herts **65**: 193. [Lep.]

682.—Cockayne, E. A. *Dysstroma truncata* Hufnagel ssp. *concinnata* Stephens. Ent. Rec., Bishop's Stortford, Herts **65**: 273–275. [Lep.]

683.—Coe, R. L. Handbooks for the identification of British insects. Diptera, Syrphidae. London, R. ent. Soc. **10** pt. 1, 98 pp., 46 figs.

684.—Coe, R. L. *Mallota cimbiciformis* Fallén (Diptera: Syrphidae) breeding in Hyde Park, London. Its larva and puparium compared with those of *Eristalis tenax* L., *Myiatropa florea* L., and *Helophilus* spp. Ent. Gaz., London **4**: 282–286.

685.—Coiffait, H. Les *Lathrobium* (sensu lato) de France et des régions voisines (Col. Staphylinidae). Ann. Soc. ent. France, Paris **122**: 85–111, 94 figs.

686.—Coiffait, H. Nouveaux Carabiques des Pyrénées françaises. Rev. franç. Ent., Paris **20**: 35–39. [Col.]

687.—Coiffait, H. Note sur quelques Staphylinides nouveaux pour la faune de France ou d'Espagne. Rev. franç. Ent., Paris **20**: 264–271, 19 figs. [Col.]

688.—Colas, G. Acquisition de la collection René Oberthür par le Muséum de Paris. Bull. Mus. Hist. nat., Paris (2) **25**: 298–300.

689.—Cole, A. C. Notes on the *Pheidole pilifera* (Roger) complex and a description of a new subspecies (Hymenoptera: Formicidae). J. Tenn. Acad. Sci., Nashville **27** 1952: 278–280.

690.—Cole, A. C. A checklist of the ants (Hymenoptera: Formicidae) of the Great Smoky Mountains National Park, Tennessee. J. Tenn. Acad. Sci., Nashville **28**: 34–35.

691.—Cole, A. C. Studies of New Mexico ants. I–VI. J. Tenn. Acad. Sci., Nashville **28**: 81–82, 82–84, 1 fig., 84–85, 242–244, 297–299, 299–300, 316. [Hym.]

692.—Cole, A. C. Notes on the genus *Leptothorax* in New Mexico and a description of a new species (Hymenoptera, Formicidae). Proc. ent. Soc. Wash. **55** : 27–30, 2 figs.

693.—Cole, G. A. Notes on the vertical distribution of organisms in the profundal sediments of Douglas Lake, Michigan. Amer. Midl. Nat., Notre Dame **49** : 252–256. [Dipt.]

694.—Coleman, R. W. A new blackfly species from California (Diptera, Simuliidae). Proc. ent. Soc. Wash. **55** : 45–46.

Coll *see* Español Coll.

Collado *see* Gil Collado.

695.—Collart, A. *Hormopeza obliterata* Zetterstedt en Belgique (Diptera Empididae). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 2 : 1–4, 1 fig.

696.—Collenette, C. L. Notes on African Lymantriidae, with descriptions of some new species. Ann. Mag. nat. Hist., London (12) **6** : 561–578, 1 pl. 10 figs. [Lep.]

697.—Collenette, C. L. New and little known Indonesian Lymantriidae (Lep.). Treubia, Bogor **22** : 225–232, 19 figs.

698.—Collin, J. E. On the British species of *Scaptomyza* Hardy and *Parascaptomyza* Duda (Dipt., Drosophilidae). Entomologist, London **86** : 148–151.

699.—Collin, J. E. Some additional British Anthomyiidae (Diptera). J. Soc. Brit. Ent., Bournemouth **4** : 169–177.

700.—Collin, J. E. A new species of *Rhamphomyia* Meigen (Diptera : Empididae) from Morocco. Proc. R. ent. Soc. London (B) **22** : 57–58, 1 fig.

701.—Collin, J. E. A revision of the British (and notes on other) species of Lonchaeidae (Diptera). Trans. Soc. Brit. Ent., Bournemouth **11** : 181–207, 24 figs.

702.—Colombo, G. L'oogenesi negli Ortotteri, I. Ricerche istologiche e citometriche in *Anacridium aegyptium* L. dalla schiusa al'imagine. Acta zool., Stockholm **34** : 191–232, 27 figs.

703.—Comfort, A. Absence of a Lansing effect in *Drosophila subobscura*. Nature, London **172** : 83–84. [Dipt.]

704.—Common, I. F. B. The Australian species of *Heliothis* (Lepidoptera : Noctuidae) and their pest status. Aust. J. Zool., Melbourne **1** : 319–344, 1 pl. 4 figs.

705.—Comstock, J. A. Collecting butterflies in the coastal area of Mexico near Manzanillo, Colima, with notes on the life history of a rare skipper. Bull. S. Calif. Acad. Sci., Los Angeles **52** : 43–45, 2 figs. [Lep.]

706.—Comstock, J. A. Life history notes on four southern Arizona butterflies. Bull. S. Calif. Acad. Sci., Los Angeles **52** : 127–136, 2 pls. 1 fig. [Lep.]

Comstock, W. P. *see* Rindge & Comstock.

707.—Conci, C. & **Franceschi,** T. Un curioso caso di dermatite umana provocata forse da Psocotteri. Boll. Soc. ent. ital., Genoa **83** : 17–20.

708.—Condamin, M. Lépidoptères Rhopalocères récoltés au Cameroun par C. de Raemy. Bull. Inst. franç. Afr. noire, Dakar **15** : 1037–1045.

709.—Condé, B. Diagnoses de nouveaux Campodéidés corses. Bull. Mus. Hist. nat., Paris (2) **24** (1952) : 562–567, 2 figs. [Thysanura.]

710.—Condé, B. Le Diploure *Campodea monspessulana* n. sp., hôte de la grégarine *Lepismatophila campodeae* Tuzet, Manier et Ormières. Bull. Mus. Hist. nat., Paris (2) **25** : 406–409, 1 fig. [Thysanura.]

711.—Connell, J. U. & **Glynne Jones,** G. D. Observations on the entry of dusts into the respiratory system of the adult worker honey bee, *Apis mellifera* L. Bull. ent. Res., London **44** : 291–298, 1 pl. 7 figs. [Hym.]

712.—Consani, M. Formiche di Puglia e delle isole Tremiti. Mem. Biogeogr. adriat., Venice **2** : 25–31. [Hym.]

713.—Consani, M. & **Zangheri,** P. Fauna di Romagna. Imenotteri-Formicidi. Mem. Soc. ent. ital., Genoa **31** 1952 : 38–48.

714.—Consiglio, C. Odonati dell' Italia meridionale e degli Abruzzi. Mem. Soc. ent. ital., Genoa **31** : 96–108.

715.—Cook, E. F. On the early stages of *Neopachygaster maculicornis* (Hine) and *Berkshiria aldrichi* (Malloch) (Diptera : Stratiomyidae). Ann. ent. Soc. Amer., Columbus **46** : 293–299, 3 pls.

716.—Cook, E. F. The Trichodectid of the hog-nosed skunk, *Conopatus leuconotus* Lichtenstein (Mallophaga : Trichodectidae). Ent. News, Lancaster, Pa. **64** : 60–67, 3 figs.

717.—Cook, jr., P. P. The Membracid genus *Multareis*, and a new genus, *Multareoides* (Homoptera). J. Kansas ent. Soc., Manhattan **26** : 78–94, 58 figs.

718.—Cook, jr., P. P. New distribution records for Membracidae (Homoptera). J. Kansas ent. Soc., Manhattan **26** : 145.

719.—Cook, T. W. The ants of California. Palo Alto, Cal., Pacific Books xiii & 462 pp., illus. [Hym.]

720.—Cooper, K. W. Records and flower preferences of Masarid wasps. II. Polytropy or oligotropy in *Pseudomasaris* ? (Hymenoptera : Vespidae). Amer. Midl. Nat., Notre Dame **48** : 103–110.

721.—Cooper, K. W. The wasps of Penikese Island, Buzzards Bay, Massachusetts (Hymenoptera). Ent. News, Lancaster, Pa. **64** : 29–36.

722.—Cooper, K. W. Biology of Eumenine wasps I. The ecology, predation, nesting and competition of *Ancistrocerus antilope* (Panzer). Trans. Amer. ent. Soc., Philadelphia **79** : 13–35. [Hym.]

Coppel, H. C. *see* Arthur & Coppel ; Maw & Coppel.

Corbe, J. M. *see* Huard & Corbe.

723.—Corbet, P. S. A terminology for the labium of larval Odonata. Entomologist, London **86** : 191–196, 8 figs.

724.—Costa Leite, I. da & Barbosa, A. *Triatoma* (*Eutriatoma*) *matogrossensis* n. sp. Manguinhos, Rio de Janeiro **2** no. 9 : 1–3, 4 figs. [Hem.]

Costa Leite, I. da *see* Costa Lima & Costa Leite.

725.—Costa Lima, A. da. Insetos do Brasil. 8°. tomo. capítulo XXIX. Coleópteros 2ª. parte. Rio de Janeiro, Esc. nac. Agron. 323 pp. 259 figs.

726.—Costa Lima, A. da. Poliembrionia nos animais. Agronomia, Rio de Janeiro **12** : 11–18, 2 figs.

727.—Costa Lima, A. da. Moscas de frutas do U.S. National Museum (Smithsonian Institution) I, II (Diptera : Trypetidae). An. Acad. bras. Ciênc., Rio de Janeiro **25** : 151–152, 1 pl., 153–155, 3 pls.

728.—Costa Lima, A. da. Dois Coccinelídeos do gênero *Prodilis* (=*Neaporia*) (Col. Coccinellidae, Ortaliini). Dusenia, Curitiba **4** : 301–302, 1 pl.

729.—Costa Lima, A. da & Costa Leite, I. da. Um novo grilo cavernícola (Orthoptera, Gryllidae, Phalangopsinae). An. Acad. bras. Ciênc., Rio de Janeiro **25** : 167–170.

730.—Cottier, W. Aphids of New Zealand. Bull. N.Z. Dep. sci. ind. Res., Wellington no. 106 xi & 382 pp. 98 figs. [Hem.]

731.—Cottier, W. Endemic Aphids in New Zealand. Rep. 7th Sci. Congr. Christchurch [N.Z.] 1951 : 87–92. [Hem.]

732.—Couchman, L. E. Notes on some species of *Oreixenica* Waterhouse and Lyell (Lepidoptera, Satyridae), with descriptions of new forms. Proc. R. ent. Soc. London (B) **22** : 73–84, 3 figs.

733.—Couchman, L. E. Notes on a collection of Hesperiidae made by F. M. Angel in the Northern Territory. Trans. roy. Soc. S. Aust., Adelaide **74** 1951 : 15–17. [Lep.]

Coujard-Champy, C. *see* Champy & Coujard-Champy.

Coulombre, J. *see* Hastings, McElroy & Coulombre.

Counce, S. J. *see* Selman & Counce.

734.—Coupin, M. L. Action du thiophosphate de diéthyle et de paranitrophényle sur le sang de *Gryllus domesticus*. C.R. Acad. Agric. France, Paris **39** : 505–508. [Orth.]

735.—Cova García, P. Introducción al estudio de los insectos. Publ. Div. Malar., Caracas no. 9 1950: 1–141, 133 figs.

736.—Cova García, P. Distribución geográfica y datos bionómicos de los Anofelinos de Venezuela. Publ. Div. Malar., Caracas no. 10 1951: 1–226. [Dipt.]

Cova-García, P. *see* Gabaldón & Cova-García.

737.—Cox, C. E. Analysis of frequency distribution of adults and larvae of *Choristoneura fumiferana* (Clem.) and *C. pinus* Free. (Lepidoptera: Tortricidae). Canad. Ent., Ottawa **85**: 136–141, 4 figs.

738.—Craig, C. H. *Psithyrus insularis* (Sm.) in a nest of *Bombus ternarius* Say (Hymenoptera: Bombidae). Canad. Ent., Ottawa **85**: 311–312.

Craig, R. *see* Chapman & Craig; Clark & Craig.

739.—Crane, J. & Fleming, H. Construction and operation of butterfly insectaries in the Tropics. Zoologica, New York **38**: 161–172, 5 pls. 2 figs.

740.—Creighton, W. S. New data on the habits of the ants of the genus *Veromessor*. Amer. Mus. Novit., New York no. 1612: 1–18. [Hym.]

741.—Creighton, W. S. A new subspecies of *Xenomyrmex stolli* from northeastern Mexico (Hymenoptera, Formicidae). Amer. Mus. Novit., New York no. 1634: 1–5, 1 fig.

742.—Creighton, W. S. The rediscovery of *Leptothorax silvestrii* (Santschi) (Hymenoptera, Formicidae). Amer. Mus. Novit., New York no. 1635: 1–7, 6 figs.

743.—Creighton, W. S. *Pseudomyrmex apache*, a new species from the southwestern United States (Hymenoptera: Formicidae). Psyche, Cambridge, Mass. **59** (1952): 131–142, 1 pl.

744.—Creighton, W. S. Studies on Arizona ants (4) *Camponotus* (*Colobopsis*) *papago*, a new species from southern Arizona. Psyche, Cambridge, Mass. **59** (1952): 148–162, 1 pl., 2 figs. [Hym.]

745.—Creighton, W. S. New data on the habits of *Camponotus* (*Myrmaphaenus*) *ulcerosus* Wheeler. Psyche, Cambridge, Mass. **60**: 82–84. [Hym.]

746.—Creutz, G. Heteropteren als Vogelnahrung. Beitr. Ent., Berlin **3**: 411–419. [Hem.]

747.—Crewe, W. The effect of light on the biting activity of *Chrysops silacea* in the forest at Kumba, British Cameroons. Ann. trop. Med. Parasit., Liverpool **47**: 340–343. [Dipt.]

748.—Cristobal, U. L. Un parásito cecidógeno del manzano, *Dasyneura* (*Perrisia*) *mali* Kieffer (Diptera-Cecidomidae). Rev. Fac. Agron., Eva Peron **29**: 201–205, 1 fig.

Croissant, O. *see* Lépine, Vago & Croissant.

749.—Crooke, M. Some notes on *Anoplonyx destructor* Benson. Bull. ent. Res., London **44**: 77–81, 1 pl. 1 fig. [Hym.]

750.—Crosskey, R. W. Two new species of *Aulacostethus* Philippi, and a new species of *Aulacus* Jurine, from Australia, together with a key to the Australian species of *Aulacostethus* (Hymenoptera: Aulacidae). Ann. Mag. nat. Hist., London (12) **6**: 758–766, 6 figs.

751.—Crosskey, R. W. A revision of the genus *Hyptiogaster* Kieffer (Hymenoptera: Gasteruptionidae), with descriptions of two new genera and three new species. Trans. R. ent. Soc. London **104**: 347–384, 25 figs.

752.—Crosson du Cormier, A., Guérin, P. & **Toulgoët,** H. de. Nouvelle note sur *Boloria aquilonaris* Stichel. Rev. franç. Lépid., Paris **14**: 21–23, 1 pl.

753.—Crotch, W. J. B. A new hybrid race of the genus *Philosamia*. Ent. Rec., Bishop's Stortford, Herts **65**: 281–282, 3 figs. [Lep.]

754.—Crowson, R. A. The classification of the families of British Coleoptera (contd.). Ent. mon. Mag., London **89**: 37–59, 181–198, 237–248, 84 figs.

755.—Csiki, E. Ueber neue und bekannte Coleopteren aus Ungarn und den angrenzenden Ländern. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **3**: 115–135, 7 figs.

756.—Cumber, R. A. Some aspects of the biology and ecology of humble-bees bearing upon the yields of red-clover seed in New Zealand. N.Z. J. Sci. Tech., Wellington (B) **34**: 227–240, 1 fig. [Hym.]

757.—Cumber, R. A. Flight records of Coleoptera and Hemiptera taken with a modified Rothamsted light trap operated at Paiaka. N.Z. J. Sci. Tech., Wellington (B) **34**: 242–244.

758.—Cumber, R. A. The New Zealand species of *Oliarus* (Hem. Cixiidae). Trans. roy. Soc. N.Z., Dunedin **81**: 71–72, 1 fig.

759.—Cunha, A. B. da. A further analysis of the polymorphism of *Drosophila polymorpha*. Nature, London **171**: 887. [Dipt.]

760.—Cunha, A. B. da. Chromosomal inversions with sex-limited effects. Nature, London **172**: 815–816. [Dipt.]

761.—Cunha, A. B. da, **Brncic,** D. & **Salzano,** F. M. A comparative study of chromosomal polymorphism in certain South American species of *Drosophila*. Heredity, London **7**: 193–202. [Dipt.]

Cunningham, D. *see* Duncan & Cunningham.

762.—Curran, C. H. The Asilidae and Mydaidae of the Bimini Islands, Bahamas, British West Indies (Diptera). Amer. Mus. Novit., New York no. 1644: 1–6.

763.—Curran, C. H. Notes and descriptions of some Mydaidae and Syrphidae (Diptera). Amer. Mus. Novit., New York no. 1645: 1–15.

764.—Curtis, L. C. Observations on mosquitoes at Whitehorse, Yukon Territory (Culicidae: Diptera). Canad. Ent., Ottawa **85**: 353–370, 11 figs.

da Cunha *see* Cunha.

da Fonseca *see* Fonseca.

Dahm, P. A. *see* Mahmoud Zeid, Dahm, Hein & McFarland.

765.—Dalmat, H. T. Simuliidae (Diptera) of Guatemala. Descriptions of *Simulium* (*Dyarella*) *ardeni*, n. sp. and *Simulium* (*Lanea*) *jacobsi*, n. sp. Ann. ent. Soc. Amer., Columbus **46**: 35–42, 11 figs.

766.—Dalmat, H. T. & **Gibson,** C. L. A study of flight range and longevity of blackflies (Diptera, Simuliidae) infected with *Onchocerca volvulus*. Ann. ent. Soc. Amer., Columbus **45** (1952): 605–612.

767.—Daniel, F. Beiträge zur Kenntnis der Arctiidae Ostasiens unter besonderer Berücksichtigung der Ausbeuten von Dr. h. c. H. Höne aus diesem Gebiet (Lep.-Het.) III. Teil: Lithosiinae (contd.). Bonn. zool. Beitr. **3** (1952): 305–324, 11 figs.

768.—Daniel, F. Neue Heterocera-Arten und -Formen. Mitt. münch. ent. Ges., Munich **43**: 252–261, 1 pl. [Lep.]

769.—Daniel, F. Die Formen von *Gluphisia crenata* Esp. NachrBl. bayer. Ent., Munich **2**: 65–69. [Lep.]

770.—Daniel, F. Zwei neue Endrosinae-Formen (Lep.-Het.). NachrBl. bayer. Ent., Munich **2**: 82–83.

771.—Daniel, F. & **Wolfsberger,** J. Beiträge zur Kenntnis der Lepidopteren-Fauna des Oberinntales (Vorbericht.). NachrBl. bayer. Ent., Munich **2**: 49–51.

772.—Dansan, A. Sur le chant de l'*Eugaster spinulosus* Joh. (Orthop.-Tettigon.). C.R. Soc. Sci. nat. Maroc, Rabat **1952**: 127–128, 4 figs.

773.—Darchen, R. La régulation sociale et l'écartement des rayons chez les abeilles. C.R. Acad. Sci., Paris **237**: 1032–1034. [Hym.]

774.—Darchen, R. Sur l'activité exploratrice de *Blattella germanica*. Z. Tierpsychol., Berlin **9** 1952: 362–372, 12 figs. [Orth.]

775.—Darge, R. & **Séguy,** E. Une variété nouvelle du *Neolamprima adolphinae* Gestro, (Coleopt. Lucanidae). Rev. franç. Ent., Paris **20**: 252–253, 1 fig.

776.—Darlington, jr., P. J. West Indian Carabidae (Coleoptera). The Bahama species. Amer. Mus. Novit., New York no. 1650 : 1–16.

777.—Darlington, jr., P. J. A new *Bembidion* (Carabidae) of zoogeographic interest from the Southwest Pacific. Coleopt. Bull., Washington, D.C. **7** : 12–16.

778.—Darlington, jr., P. J. Australian Carabid beetles I. Psyche, Cambridge, Mass. **60** : 52–61. [Col.]

Das, C. C. *see* Srivastava & Das.

779.—Dashman, T. Terminology of the pretarsus. Ann. ent. Soc. Amer., Columbus **46** : 56–62, 4 figs.

780.—Davatchi, A. & Remaudière, G. Sur un *Brachycaudus* V.D.G. (Hom. Aphididae) nouveau de l'Iran. Rev. Path. vég., Paris **32** : 93–98, 11 figs.

781.—Davey, J. T. Possibility of movements of the African migratory locust in the solitary phase and the dynamics of its outbreaks. Nature, London **172** : 720–721. [Orth.]

782.—David, J. Etude expérimentale des variations de l'aile vestigiale de *Drosophila melanogaster* Meigen. Bull. biol., Paris **87** : 431–460, 7 figs. [Dipt.]

783.—David, P. Quatre nouvelles *Sagra* africaines (Col. Chrysomelidae). Bull. Inst. franç. Afr. noire, Dakar **15** : 1506–1511, 7 figs.

784.—David, P. Un nouveau *Chrysochloa* de France (Col., Chrysomelidae). Bull. Soc. ent. Fr., Paris **58** : 13–14, 3 figs.

785.—David, P. Note sur trois Chrysomelidae (Col.). Bull. Soc. ent. France, Paris **58** : 37–39, 2 figs.

786.—David, P. Note sur deux espèces confondues de *Sagra* (Col. Chrysomelidae). Bull. Soc. ent. Fr., Paris **58** : 70–71, 6 figs.

787.—David, P. Un nouveau sous-genre de *Chrysochloa* (Col. Chrysomelidae). Rev. franç. Ent., Paris **20** : 184–186, 3 figs.

Davidson, G. *see* Draper & Davidson.

788.—Davies, D. M. Longevity of black flies in captivity. Canad. J. Zool., Ottawa **31** : 304–312, 7 figs. [Dipt.]

789.—Davies, L. Some field observations on Simuliidae (Diptera) at Holandsfjord, Norway. Oikos, Copenhagen **3** (1951) : 193–199.

790.—Davies, M. J. The contents of the crops of some British Carabid beetles. Ent. mon. Mag., London **89** 18–23. [Col.]

Davis, jr., C. G. *see* Rizki & Davis.

791.—Davis, C. J. New host and insect records from the island of Hawaii. Proc. Hawaii. ent. Soc., Honolulu **15** : 85–86.

792.—Day, M. F. & **Bennetts,** M. J. Healing of gut wounds in the mosquito *Aedes aegypti* (L.) and the leafhopper *Orosius argentatus* (Ev.). Aust. J. biol. Sci., Melbourne **6** : 580–585, 2 pls. [Dipt., Hem.]

793.—Day, M. F. & **Irzykiewicz,** H. Feeding behaviour of the Aphids *Myzus persicae* and *Brevicoryne brassicae*, studied with radiophosphorus. Aust. J. biol. Sci., Melbourne **6** : 98–108, 2 figs. [Hem.]

794.—Day, W. C. A new mayfly genus from California (Ephemeroptera). Pan-Pacif. Ent., San Francisco **29** : 19–24, 2 pls.

795.—Dearolf, K. The invertebrates of 75 caves in the United States. Proc. Pa Acad. Sci., Harrisburg **27** : 225–241.

796.—Deay, H. O. The periodical cicada *Magicicada septendecim* (L.) in Indiana. Proc. Indiana Acad. Sci., Indianapolis **62** : 203–206. [Hem.]

797.—Debatisse, G. Longicornes marocains. Entomologiste, Paris **8** 1952 : 135–136. [Col.]

de Beaumont *see* Beaumont.

de Biagi *see* Biagi.

de Bros *see* Bros.

798.—De Buen, A. M. *Orthopodomyia kummi* Edwards, 1939, mosquito nuevo para Mexico. Descripción de la larva y de la pupa (Diptera, Culicidae). An. Inst. Biol., Mexico **23** 1952 : 243–252, 4 pls.

799.—De Buen, A. M. Descripción de la pupa de *Wyeomyia* (*Wyeomyia*) *abebela* Dyar & Knab, 1908 (Diptera, Culicidae). An. Inst. Biol., Mexico **23** 1952 : 253–254, 1 pl.

800.—De Carlo, J. A. Subfamilia Gelastocorinae. Nuevas especies de los géneros *Gelastocoris* Kirkaldy y *Montandonius* Melin (Gelastocoridae Hemiptera). Publ. Mis. Estud. Pat. reg. argent., Buenos Aires **24** nos. 83–84 : 87–102, 3 pls.

De Carlo, J. A. *see* Drake & De Carlo.

de Castro *see* Castro.

801.—DeCoursey, J. D. & **Webster,** A. P. A method of clearing the chorion of *Aedes sollicitans* (Walker) eggs and preliminary observations on their embryonic development. Ann. ent. Soc. Amer., Columbus **45** (1952) : 625–632, 18 figs. [Dipt.]

802.—DeCoursey, J. D., **Webster,** A. P., **Taylor,** jr., W. W., **Leopold,** R. S. & **Kathan,** R. H. An antibacterial agent from *Tribolium castaneum* (Herbst). Ann. ent. Soc. Amer., Columbus **46** : 386–392. [Col.]

Deem, B. A. *see* Ryckman & Deem.

Degrois, M. *see* Busnel, Degrois & Busnel.

de Groot *see* Groot.

803.—Dehalu, M. & **Leclercq,** J. Application des séries logarithmiques de Fisher-Williams à la classification des Hyménoptères crabroniens. Ann. Soc. zool. Belg., Louvain **82** 1951 : 67–82, 2 figs.

de Jong *see* Jong.

804.—Delabie, J. Note sur un *Quedius* nouveau (Col. Staphylinidae). Bull. Soc. ent. France, Paris **58** : 33–37, 1 fig.

de Laever *see* Laever.

805.—Delamare - Deboutteville, C. Collemboles du Kilimanjaro récoltés par le Dr. George Salt. Ann. Mag. nat. Hist., London (12) **6** : 817–831, 8 figs.

806.—Delamare - Deboutteville, C. Collemboles cavernicoles des Pouilles, avec la description d'une espèce italienne du genre *Troglopedetes* Absolon. Mem. Biogeogr. adriat., Venice **2** : 43–47, 9 figs.

Delamare-Deboutteville, C. *see* Cassagnau & Delamare-Deboutteville ; Goto & Delamare-Deboutteville.

807.—Delany, M. J. A revision of the British Thysanura. Ent. mon. Mag., London **89** : 144–145.

de Lattin *see* Lattin.

808.—De Lerma, B. Biochimica e sviluppo embrionale degli insetti. II.—Sulla natura e significato delle sostanze fluorescenti delle uova di *Locusta migratoria*. Arch. zool. (ital.), Napoli **37** 1952 : 81–91, 1 pl.

de Lesse *see* Lesse.

809.—Deleurance, E. P. Le polymorphisme social et son déterminisme chez les guêpes. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952 : 141–155. [Hym.]

810.—Delève, J. Dryopidae de l'Ouest africain. Bull. Inst. franç. Afr. noire, Dakar **15** : 1461–1462, 1 fig. [Col.]

de Lisle *see* Lisle.

del Junco y Reyes *see* Junco y Reyes.

811.—Delkeskamp, K. Bemerkenswerte Halsschildanomalie eines Laufkäfers (Coleoptera : Carabidae). Beitr. Ent., Berlin **3** : 163–164, 2 figs.

812.—Delkeskamp, K. Dacninae (Coleoptera Clavicornia) Fam. Erotylidae. Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. **17** : 59–82, 8 figs.

813.—DeLong, D. M. A synopsis of the tribe Neocoelidinii in the Americas (Homoptera-Cicadellidae). Lloydia, Menasha **16** : 93–131, 8 figs.

DeLong, D. M. *see* Ross & DeLong ; Ruppel & DeLong.

814.—De Lucca, C. Additions to the list of Maltese Microlepidoptera. Ent. mon. Mag., London **89** : 129.

815.—Delucchi, V. Deux espèces nouvelles de *Pachyneuron* Walker, parasites de Diptères. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 11 : 1–14, 16 figs. [Hym.]

816.—Delucchi, V. Neue Chalcidier aus der Subfamilie der Lamprotatinae (Pteromalidae). Mitt. schweiz. ent. Ges., Berne **26**: 201–218, 4 figs. [Hym.]

817.—Delucchi, V. *Aphidecta obliterata* L. (Coleoptera, Coccinellidae) als Räuber von *Dreyfusia* (*Adelges*) *piceae* Ratz. PflSch. Ber., Vienna **11**: 73–83, 5 figs.

818.—Delucchi, V. *Microctonus emmae* n. sp. (Hymenoptera Braconidae) parassita degli adulti di *Longitarsus albineus* Foudr. in Puglia. Redia, Florence **37** 1952: 179–186, 4 figs. [Col.]

819.—Delucchi, V. & **Verbeke,** J. *Habrocytus milleri* n. sp., ectoparasite de *Coleophora frischella* L. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 3: 1–14, 19 figs. [Hym., Lep.]

de Lucena *see* Lucena.

820.—De Meillon, B. & **Hardy,** F. New records and species of biting insects from the Ethiopian Region—IV. J. ent. Soc. S. Afr., Pretoria **16**: 17–35, 4 figs. [Siphonapt., Dipt.]

De Meillon, B. *see* Freeman & De Meillon.

de Mello *see* Mello.

821.—Demelt, C. v. Ein Beitrag zur Biologie von *Semanotus undatus* L. (Käfer, gebändeter Scheibenbock). Carinthia II, Klagenfurt **142** 1952: 46–49, 10 figs. [Col.]

822.—[Dement'ev, G. P., **Kartashev,** N. N. & **Soldatova,** A. N.] Nutrition and practical importance of certain predatory birds in S.W. Turkmenistan. [In Russian.] Zool. Zhurn., Moscow **32**: 361–375.

de Monte *see* Monte.

823.—Demoulin, G. Additions et rectifications aux "Ephéméroptères" du "Traité de Zoologie" publié sous la direction de P.-P. Grassé. Bull. Ann. Soc. ent. Belg., Brussels **89**: 264–268.

824.—Demoulin, G. Les Chromarcyinae subfam. nov., Ephéméroptères Oligoneuriides orientaux. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 17: 1–12, 3 figs.

825.—Demoulin, G. A propos des *Polyplocia* de Borneo (Insectes Ephéméroptères). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 19: 1–4, 1 fig.

826.—Demoulin, G. A propos d'*Hexagenites weyenberghi* Scudder Ephéméroptère du Jurassique supérieur de Solenhofen. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 25: 1–8, 2 figs.

827.—Dennell, R. & **Malek,** S. R. A. Homology of the layers of the epicuticle of insects. Nature, London **171**: 298–299.

828.—Denniger, C. Methodes simples et productives d'élevage de la Drosophile et de la mouche domestique. Bull. mens. Soc. linn. Lyon **22**: 126–129, 1 fig. [Dipt.]

829.—Denning, D. G. A new genus of Limnephilidae (Trichoptera). Pan-Pacif. Ent., San Francisco **29**: 165–169, 4 figs.

830.—Dennis, C. J. The Membracidae of Wisconsin. Trans. Wisconsin Acad. Sci. Arts Lett., Madison **41** 1952: 129–152, 4 pls. [Hem.]

831.—Dennis, C. J. & **Dicke,** R. J. The Membracidae of the University of Wisconsin arboretum. Trans. Wisconsin Acad. Sci. Arts Lett., Madison **42**: 131–141, 1 fldg. map. [Hem.]

832.—Denso, P. Madagassische Schmetterlinge. Dtsch. ent. Z., Iris, Dresden **57** (1943) 1944: 81–126, 3 pls. 1 map. [Lep.]

833.—Denucé, J. M. & **Vandermeerssche,** G. Etude au microscope électronique des trachées des glandes séricigènes de *Galleria mellonella*. Ann. Soc. zool. Belg., Brussels **83** 1952 [1953]: 183–188, 3 figs. [Lep.]

834.—Deobhakta, S. R. Preliminary notes on the early embryonic development of *Mylabris pustulata* Thunb. (Coleoptera). Agra Univ. J. Res. (Sci.) **2**: 125–134, 18 figs.

de Oliveira *see* Oliveira.

de Peyerimhoff *see* Peyerimhoff.

835.—Depta, V. Príspevek k prieskumu fauny slovenska (Col.). Biol. Sborn. slovensk. Akad., Bratislava **7** 1952 no. 3–4: 186–188.

de Ruiter *see* Ruiter.

836.—De Santis, L. Adiciones a la fauna argentina de Afelínidos. II (Hymenoptera : Chalcidoidea). Rev. Fac. Agron., Eva Peron **29** : 73–84, 2 figs.

De Santis, L. *see* Esquivel & De Santis.

837.—Descamps, M. Observations relatives au criquet migrateur africain et à quelques autres espèces d'Acridae du Nord-Cameroun. Agron. trop., Nogent **8** : 567–613, 37 figs. [Orth.]

838.—Descarpentries, A. Contribution à l'étude de la zone d'inondation du Niger (mission G. Remaudière, 1950) VIII. Coléoptères Buprestides. Bull. Inst. franç. Afr. noire, Dakar **15** : 1566–1568.

839.—Descarpentries, A. La réserve naturelle intégrale du Mt Nimba, fascicule 1. III. Coléoptères Buprestides. Mission M. Lamotte en Guinée (1942). Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 45–48.

840.—Desneux, J. Les constructions hypogées des *Apicotermes*, termites de l'Afrique tropicale. Etude descriptive et essai de phylogénie. Ann. Mus. Congo belg., Tervuren (Sér. 8°) Sci. zool. **17** 1952 : 7–98, 50 pls. 22 figs. [Isopt.]

841.—Desneux, —. Notes sur la phylogénie des nidifications des *Apicotermes*. Ann. Sci. nat., Paris Zool. (11) **14** (1952) : 393–396. [Isopt.]

de Souza *see* Souza.

842.—Dethier, V. G. Summation and inhibition following contralateral stimulation of the tarsal chemoreceptors of the blowfly. Biol. Bull., Lancaster, Pa. **105** : 257–268, 2 figs. [Dipt.]

843.—Dethier, V. G. Host plant perception in phytophagous insects. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 81–89.

844.—[Detinova, T. S.] Mechanism of gonotrophic harmony in the common malaria mosquito (*Anopheles maculipennis* Mg.). [In Russian.] Zool. Zhurn., Moscow **32** : 1178–1188, 3 figs. [Dipt.]

de Toulgoët *see* Toulgoët.

845.—Diakonoff, A. New Guinean Microlepidoptera. IV. Proc. Acad. Wet., Amsterdam (C) **56** : 474–485, 8 figs.

846.—Diakonoff, A. Microlepidoptera of New Guinea. Results of the Third Archbold Expedition (American–Netherlands Indian Expedition 1938–1939). Part II. Verh. Akad. Wet., Amsterdam (2) **49** no. 3 : 1–166, 164 figs.

847.—Dias dos Santos, N. Fauna do distrito federal. I. Descrição do alótipo macho de *Erythrodiplax chromoptera* Borror, 1942 (Odonata, Libellulidae). Dusenia, Curitiba **4** : 247–250, 1 fig.

Díaz Nájera, A. *see* Briseño Iragorry, Vargas & Díaz Nájera; Vargas & Díaz Nájera.

848.—Dicke, R. J. & **Eastwood,** J. P. The seasonal incidence of blowflies at Madison, Wisconsin (Diptera–Calliphoridae). Trans. Wisconsin Acad. Sci. Arts Lett., Madison **41** 1952 : 207–217, 8 figs.

Dicke, R. J. *see* Dennis & Dicke.

849.—Dickson, C. G. C. Recently observed food-plants of some Cape Lepidopterous larvae (4th series). J. ent. Soc. S. Afr., Pretoria **16** : 73–76.

Dickson, C. G. C. *see* Clark & Dickson.

850.—Didier, R. & **Séguy,** E. Catalogue illustré des Lucanides du globe. Encycl. ent., Paris Atlas (A) **28** 1952 112 pls.; Texte (A) **27** : 1–223, 1 col. frontisp. 136 figs. [Col.]

851.—Didier, R. & **Séguy,** E. Note sur le *Lucanus singularis* Planet et sur les espèces voisines. Rev. franç. Ent., Paris **20** : 28–32, 7 figs. [Col.]

852.—Didier, R. & **Séguy,** E. Descriptions de Lucanides nouveaux (1). Rev. franç. Ent., Paris **20** : 104–109, 7 figs. [Col.]

853.—Dieter, A. Ueber das Stridulationsorgan von *Copris hispanus* L. im Vergleich zu *Copris lunaris* L. Wiss. Z. Univ. Halle **2** : 509–513, 8 figs. [Col.]

854.—Dietz, R. A. Field notes on *Neorhynchocephalus sackenii* (Williston) in Missouri. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 38–39. [Dipt.]

855.—Dillon, L. S. The Meloidae (Coleoptera) of Texas. Amer. Midl. Nat., Notre Dame **48** 1952: 330–420, 3 pls.

856.—Dillon, L. S. & E. S. A change of names in the Cerambycidae, with other notes. Ent. News, Lancaster, Pa. **64**: 260–261. [Col.]

857.—Dimmick, J. F. An ecological study of *Formica formica exsectoides*. Trans. Illinois Acad. Sci., Springfield **44** (1951) 1952: 197–204, 2 figs. [Hym.]

858.—Dimond, J. B. & **Hart,** W. G. Notes on the blackflies (Simuliidae) of Rhode Island. Mosquito News, Albany, N.Y. **13**: 238–242. [Dipt.]

859.—Dinther, J. B. M. van. Details about some flytraps and their application to biological research. Ent. Ber., Amsterdam **14**: 201–204, 3 figs.

860.—Dinther, J. B. M. van. Les punaises du mûrier sauvage. Tijdschr. Ent., Amsterdam **96**: 199–217, 20 figs. [Hem.]

861.—Dinther, J. B. M. van. An apparatus for breeding insects. Tijdschr. PlZiekt., Wageningen **59**: 200, 1 pl.

862.—Dirsh, V. M. Charilainae, a new subfamily of Acrididae (Orthoptera). Ann. Mag. nat. Hist., London (12) **6**: 161–173, 6 figs.

863.—Dirsh, V. M. New and little-known South African Acrididae (Orthoptera). Ann. Mag. nat. Hist., London (12) **6**: 376–381, 1 pl. 2 figs.

864.—Dirsh, V. M. Morphometrical studies on phases of the desert locust (*Schistocerca gregaria* Forskål). Anti-locust Bull., London no. 16: 1–34, 31 figs. [Orth.]

865.—Dirsh, V. M. & **Uvarov,** B. P. Tree locusts of the genus *Anacridium* (Orthoptera, Acrididae). Eos, Madrid **29**: 7–69, 66 figs.

866.—Dirsh, V. M. & **Uvarov,** B. P. Preliminary diagnoses of new genera and new synonymy in Acrididae. Tijdschr. Ent., Amsterdam **96**: 231–237. [Orth.]

867.—Dispons, P. Etude sur le genre *Ischnonyctes* Stal. Biologie d'*Ischnonyctes barbarus* (Lucas) (Hemiptera Emesinae). Rev. franç. Ent., Paris **20**: 231–252, 35 figs.

868.—Dixon, W. B. Observations on termites in *Aralia*. Nat. Hist. Notes, Kingston no. 61: 16, 19. [Isopt.]

869.—[Dizer, Yu. B.] Morphological differences between the larvae of certain Platyscelinae and their significance for the systematics of the group. [In Russian.] Zool. Zhurn., Moscow **32**: 457–466, 3 figs. [Col.]

870.—Dlabola, J. A revision of leafhoppers in Melichar's collection. [In Czech with English summary.] Acta Mus. Morav., Brno **38**: 168–173, 5 figs. [Hem.]

871.—Dobrotworsky, N. V. The *Culex pipiens* group in south-eastern Australia I. Proc. Linn. Soc. N.S.W., Sydney **77**: 357–360, 3 figs. [Dipt.]

872.—Dobrotworsky, N. V. & **Drummond,** F. H. The *Culex pipiens* group in south-eastern Australia. II. Proc. Linn. Soc. N.S.W., Sydney **78**: 131–146, 5 figs. [Dipt.]

873.—Dobzhansky, T. & **Pavlovsky,** O. Indeterminate outcome of certain experiments on *Drosophila* populations. Evolution, Lancaster, Pa. **7**: 198–210, 5 figs. [Dipt.]

874.—Dobzhansky, T. & **Spassky,** B. Genetics of natural populations. XXI. Concealed variability in two sympatric species of *Drosophila*. Genetics, Menasha **38**: 471–484, 1 fig. [Dipt.]

875.—Docters van Leeuwen, W. M. Nieuwe gallen van Nederland. Derde bijdrage. Ent. Ber., Amsterdam **14**: 257–265.

876.—Docters van Leeuwen, W. M. De zoöcecidia van het eiland Texel. Ent. Ber., Amsterdam **14**: 373–379.

877.—Docters van Leeuwen, W. M. Galls caused by Lepidoptera. Tijdschr. PlZiekt., Wageningen **59**: 198–199.

878.—Dodge, H. R. Two Sarcophagid flies new to Hawaii. Proc. Hawaii. ent. Soc., Honolulu **15** : 131–134, 1 pl. [Dipt.]

879.—Doesburg, P. H. van. Mededelingen over Syrphidae XII. Ent. Ber., Amsterdam **14** : 241–244. [Dipt.]

880.—Doesburg, P. H. van. On some Neotropical Passalidae (Coleoptera). Pan-Pacif. Ent., San Francisco **29** : 203–205.

881.—Doets, C. Lepidopterologische mededelingen over 1950–1951. Ent. Ber., Amsterdam **14** : 196–200, 9 figs.

882.—Domenichini, G. Morfologia, variabilità dei caratteri e speciografia dell'*Anagyrus pseudococci* Gir. (Hymen. Chacididoidea). Boll. Zool. agr. Bachic., Milan **18** 1952 : 117–181, 1 pl., 10 figs.

883.—Domenichini, G. Sinonimia di alcune specie europee del gen. *Anagyrus* How. e descrizione di una nuova specie del genere. Boll. Zool. agr. Bachic., Milan **19** : 53–61, 9 figs. [Hym.]

884.—Domenichini, G. *Degeeria luctuosa* (*funebris*) Meig. (Dipt. Larvaev.) e *Perilitus deceptor* Wesm. (Hym. Bracon.) parassiti di *Melasoma aenea* L. adulta. Boll. Zool. agr. Bachic., Milan **19** : 139–176, 1 pl., 8 figs.

885.—Domenichini, G. Studio sulla morfologia dell'addome degli Hymenoptera Chalcidoidea. Boll. Zool. agr. Bachic., Milan **19** : 183–298, 1 pl., 27 figs.

Domenichini, G. *see* Grandori & Domenichini.

886.—[Dondua, A. K.] On the embryonic development of *Scolia quadripunctata* F. [In Russian.] Zool. Zhurn., Moscow **32** : 631–634, 2 figs. [Hym.]

Donnot, H. *see* Balazuc & Donnot.

887.—Dorn, K. Zwei für Deutschland neue Carabiden. Beitr. Ent., Berlin **3** : 206–208. [Col.]

888.—Doskočil, J. Einfluss des CO_2 auf die Insektenentwicklung. [In Czech.] Acta Soc. zool. bohemoslov., Prague **16** 1952 : 209–217, 8 figs.

889.—Doskočil, J., **Janda,** jr., V. & **Wenig,** K. Gesamt Stoffwechsel der Insekten. I. Die Beziehung zwischen Körperlänge, Körperoberfläche und Körpergewicht während der Postembryonalentwicklung von Stabheuschrecke *Dixippus morosus* Br. et Redt. [In Czech with German summary.] Acta Soc. zool. bohemoslov., Prague **16** 1952 : 33–42, 4 figs.

890.—Doucet, J. Recherches sur les Culicides de Madagascar I, II. Mém. Inst. sci. Madagascar, Tananarive (A) **3** 1949 : 325–332, 3 figs. [Dipt.]

Doucet, J. *see* Grenier & Doucet.

891.—Doull, K. M. Phase coloration in Lepidopterous larvae. Nature, London **172** : 813–814.

892.—Dow, R. P. Notes on Iranian mosquitoes. Amer. J. trop. Med. Hyg., Baltimore **2** : 683–695, 1 map. [Dipt.]

893.—Dowdeswell, W. H. & **Ford,** E. B. The influence of isolation on variability in the butterfly *Maniola jurtina* L. Symp. Soc. exp. Biol., Cambridge no. 7 : 254–273, 2 maps. [Lep.]

894.—Downes, J. A. Notes on the life-cycle of *Xylophagus ater* Mg. (Dipt., Rhagionidae). Ent. mon. Mag., London **89** : 136–137.

895.—Draeseke, J. Eine neue Lasiocampide aus Java. Dtsch. ent. Z., Iris Dresden **55** (1941) 1942 : 125–126, 2 figs. [Lep.]

896.—Drake, C. J. New Neogaean Tingidae (Hemiptera). Gr. Basin Nat., Provo **13** : 13–16.

897.—Drake, C. J. Synonymic data and descriptions of new genera and species of Tingidae (Hemiptera). Gr. Basin Nat., Provo **13** : 91–99.

898.—Drake, C. J. Synonymical data and description of a new *Hydrometra* (Hemiptera : Hydrometridae). J. Kansas ent. Soc., Manhattan **26** : 40–41.

899.—Drake, C. J. New Neogaean *Rhagovelia* (Hemiptera : Veliidae). Proc. biol. Soc. Washington **66** : 145–152.

900.—Drake, C. J. A new genus and new species of Tingidae (Hemiptera). Proc. biol. Soc. Washington **66**: 211–223.

901.—Drake, C. J. The genus *Parada* Horvath (Hemiptera: Tingidae). Psyche, Cambridge, Mass. **59** (1952): 143–147.

902.—Drake, C. J. & Chapman, H. C. An undescribed Saldid from the Gulf States (Hemiptera: Saldidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 64–66, 1 fig.

903.—Drake, C. J. & Chapman, H. C. A new species of *Trepobates* Uhler from Florida (Hemiptera: Gerridae). Florida Ent., Gainesville **36**: 109–112.

904.—Drake, C. J. & Chapman, H. C. Distributional data and description of a new Hebrid (Hemiptera). Gr. Basin Nat., Provo **13**: 9–11.

905.—Drake, C. J. & Chapman, H. C. Preliminary report on the Pleidae (Hemiptera) of the Americas. Proc. biol. Soc. Washington **66**: 53–59.

906.—Drake, C. J. & De Carlo, J. A. American species of *Ranatra annulipes* Stål group (Hemiptera: Ranatridae). J. Wash. Acad. Sci. **43**: 109–117, 23 figs.

907.—Drake, C. J. & Hoberlandt, H. A new species of the genus *Angilia* from the Philippines, with a catalogue of the described species (Hemiptera: Veliidae). Pan-Pacif. Ent., San Francisco **29**: 223–227, 11 figs.

908.—Drake, C. J. & Hottes, F. C. Concerning some Mexican Veliidae (Hemiptera). Proc. biol. Soc. Washington **65** 1952: 85–87.

909.—Drake, C. J. & Hottes, F. C. Notes on *Microvelia flavipes* (Hemiptera: Veliidae). Proc. biol. Soc. Washington **66**: 73–74.

910.—Drake, C. J. & Lutz, J. C. Two undescribed Tingidae from India (Hemiptera). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 104–106.

911.—Drake, C. J. & Maa, T. Chinese and other Oriental Tingoidea (Hemiptera). Quart. J. Taiwan Mus., Taipei **6**: 87–101.

912.—Draper, C. C. & Davidson, G. A new method of estimating the survival-rate of Anopheline mosquitoes in nature. Nature, London **172**: 503. [Dipt.]

913.—Dreisbach, R. R. Additional new species in the genera *Anopompilinus*, *Anoplius*, *Pompilinus* and *Pycnopompilus* (Hymenoptera: Psammocharidae) and corrections of previous papers. Amer. Midl. Nat., Notre Dame **48**: 145–160, 31 figs.

914.—[Drenski, P.] Ueber die Verbreitung der Copeognatha in Bulgarien. [In Bulgarian with German summary.] Bull. Inst. zool. Acad. bulg. Sci., Sophia **2**: 377–382. [Psocopt.]

915.—Dresden, D. & Nijenhuis, E. D. On the anatomy and mechanism of motion of the mesothoracic leg of *Periplaneta americana*. Proc. Acad. Sci. Amsterdam **56C**: 39–47, 5 figs. [Orth.]

916.—Drilhon, A. & Vago, C. Modifications dans la figure chromatographique des acides aminés libres et des substances fluorescentes de l'hémolymphe du *Bombyx mori* L., consécutives à une paralysie d'origine microbienne. Experientia, Basle **9**: 143–145. [Lep.]

917.—Druet, J. & Duvigneaud, J. Note sur la présence en Belgique de *Copium cornutum* Thunb. et *C. teucrii* Host (Hémipt. Hétéropt. Tingidae). Bull. Ann. Soc. ent. Belg., Brussels **89**: 69–76.

918.—Drummond, F. H. The eversible vesicles of *Campodea* (Thysanura). Proc. R. ent. Soc. London (A) **28**: 145–148, 2 figs.

Drummond, F. H. *see* Dobrotworsky & Drummond.

919.—[Dryanovski, A. K.] *Crypsedra niphopasta* Obrth. (Insecta, Lepidopt.) subsp. *bulgarica* aus Bulgarien. [In Bulgarian with German summary.] Bull. Inst. zool. Acad. bulg. Sci., Sophia **2**: 373–376, 1 fig.

D'Souza, G. I. *see* Narayanan, Angalet, Subba Rao & D'Souza; Pradhan & D'Souza.

Dubreuil, R. *see* Auclair & Dubreuil.

920.—Duffy, E. A. J. A monograph of the immature stages of British and imported timber beetles (Cerambycidae). London, Brit. Mus. (Nat. Hist.) viii & 350 pp. 8 pls. 292 figs. frontisp. [Col.]

921.—Duffy, E. A. J. Handbooks for the identification of British insects. Coleoptera. Scolytidae and Platypodidae. London, R. ent. Soc. **5** pt. 15, 20 pp., 40 figs.

922.—Duffy, E. A. J. *Trinophylum cribratum* Bates (Col., Cerambycidae). A new Indian pest of British timber yards. Ent. Gaz., London **4** : 254–264, 3 pls. 6 figs.

923.—Duffy, E. A. J. Cerambycinae (Coleoptera Phytophaga) Fam. Cerambycidae. Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. 17 : 95–110, 2 figs.

924.—Duffy, E. A. J. The immature stages of Hawaiian Cerambycidae, with a key to larvae. Proc. Hawaii. ent. Soc., Honolulu **15** : 135–158, 29 figs. [Col.]

925.—Duffy, E. A. J. Ruwenzori Expedition 1934–35. Cerambycidae. London, Brit. Mus. (Nat. Hist.) **3** : 165–174, 4 figs. [Col.]

926.—Dufrane, A. Lépidoptères du Kivu (5e note). Bull. Ann. Soc. ent. Belg., Brussels **89** : 41–57.

927.—Dufrane, A. Saturniidae d'Afrique. Bull. mens. Soc. linn. Lyon **22** : 234–238, 247–252. [Lep.]

928.—Dujardin, F. Nomenclature et synonymie de certaines espèces de *Zygaena* européenes. Bull. mens. Soc. linn. Lyon **22** : 245–247. [Lep.]

929.—Dumbleton, L. J. A note on *Aleuroplatus* (*Orchamus*) *samoanus* Laing (Hemiptera-Homoptera : Aleyrodidae). Proc. Hawaii. ent. Soc., Honolulu **15** : 21–22, 7 figs.

930.—Dumbleton, L. J. Notes on New Zealand Diptera. Trans. roy. Soc. N.Z., Wellington **81** : 239–244, 11 figs.

Dumm, M. E. *see* Patterson, Dumm & Richards.

Dunbar, R. W. *see* Rothfels & Dunbar.

931.—Duncan, A. B. & **Cunningham,** D. Moths taken at light in 1951 in Dumfriesshire and Eastern Kircudbright. Trans. Dumfr. Gall. nat. Hist. Soc., Edinburgh (3) **30** : 166–170. [Lep.]

932.—Duncan-Weatherley, A. H. Some aspects of the biology of the mound ant *Iridomyrmex detectus* (Smith). Aust. J. Zool., Melbourne **1** : 178–192, 4 figs. [Hym.]

933.—DuPorte, E. M. The protocephalon : A critique of recent interpretations. Canad. Ent., Ottawa **85** : 41–55, 8 figs.

934.—DuPorte, E. M. & **Bigelow,** R. S. The clypeus and epistomal suture in Hymenoptera. Canad. J. Zool., Ottawa **31** : 20–29, 21 figs.

935.—Dupuis, C. Contribution à l'étude des Phasiinae cimicophages (Diptera Larvaevoridae). XV. Ann. Parasit. hum. comp., Paris **28** : 64–97, 2 pls. 20 figs.

936.—Dupuis, C. Genre grammatical de certains noms génériques dérivés du grec—cas particulier d'*Eurydema* Laporte (Hemipt., Pentatomidae). Bull. Mus. Hist. nat., Paris (2) **24** (1952) : 557–561.

937.—Dupuis, C. Priorité de quelques noms d'Hétéroptères de Guérin Méneville (1831). Bull. Soc. zool. Fr., Paris **77** : 447–454.

938.—Dupuis, C. Notes, remarques et observations diverses sur les Hémiptères. Troisième série : notes VI–VIII. Cah. Nat., Paris (N.S.) **8** : 25–29.

939.—Dupuis, C. Les Rhopalidae de la faune française (Hemiptera Heteroptera). Caractères généraux —Tableaux de détermination—Données monographiques sommaires. Cah. Nat., Paris (N.S.) **8** : 67–82, 42 figs.

940.—Dupuis, C. Les génitalia mâles des Hémiptères Hétéroptères. Leur utilisation en systématique. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 7–11.

Dupuy, R. *see* Gaud & Dupuy ; Gaud, Laurent & Dupuy.

941.—Durand-Delacre, R. & **Mémin,** Y. Les Phlébotomes des terriers de rongeurs sauvages au Sahara. Arch. Inst. Pasteur Algér., Algiers **31** : 320–333, 4 figs. 2 maps. [Dipt.]

942.—Durkić, J. Différences principales entre les taupins et les larves de *Omophlus lepturoides* F. [In Croat with French summary.] Pl. Prot., Belgrade **20**: 82–85, 2 figs. [Col.]

943.—Dušková, F. Morphologie von *Quadraspidiotus piri* (Lichtenstein) (Homoptera, Coccoidea). [In Czech with German summary.] Acta Soc. zool. bohemoslov., Prague **17**: 8–36, 15 figs. 1 map.

944.—Dušková, F. Die morphologische Merkmale und ökologische Bemerkungen zu den Weibchen der Schildläuse *Quadraspidiotus piri* (Licht.), *Q. mařani* Zahr., *Q. ostreaeformis* Curt. und *Q. perniciosus* (Comst.) (Homoptera, Coccoidea). [In Czech with German summary.] Acta Soc. zool. bohemoslov., Prague **17**: 229–250, 12 figs.

945.—Dutt, M. K. Chromosomes of *Opatroides vicinus* Fairm. (Coleoptera Tenebrionidae). Curr. Sci., Bangalore **22**: 278, 9 figs.

Duvigneaud, J. *see* Druet & Duvigneaud.

Dvoràk, R. *see* Havelka & Dvoràk.

Dyke *see* Van Dyke.

946.—Eassa, Y. E. E. The development of imaginal buds in the head of *Pieris brassicae* Linn. (Lepidoptera). Trans. R. ent. Soc. London **104**: 39–50, 1 pl. 3 figs.

947.—Easton, A. M. The occurrence of *Meligethes lindbergi* Rebmann in Algeria and Tunisia, including a description of its ovipositor and that of *M. obscurus* Erickson (Col., Nitidulidae). Bull. Soc. Hist. nat. Afr. N., Algiers **43** 1952: 181–183, 2 figs.

948.—Easton, A. M. A review of the *Meligethes* (Col. Nitidulidae) associated with the labiate *Marrubium vulgare* L. including the description of a new species. Bull. Soc. Sci. nat. Maroc, Rabat **32** (1952): 181–192, 22 figs.

949.—Easton, A. M. A second Australian species of *Meligethes* Stephens (Col., Nitidulidae). Proc. R. ent. Soc. London (B) **22**: 214–216, 2 figs.

950.—Eastop, V. F. Notes on East African Aphids. I–IV. E. Afr. agric. J., Nairobi **18**: 133–135, 184–187, 2 figs.; **19**: 14, 6 figs., 104, 14 figs. [Hem.]

951.—Eastop, V. F. A list of Aphids collected in Guernsey, Herm and Sark. Ent. mon. Mag., London **89**: 154–155. [Hem.]

952.—Eastop, V. F. New East African Aphids. Ent. mon. Mag., London **89**: 199–203, 3 figs. [Hem.]

953.—Eastop, V. F. An apparently undescribed structure in the Dermaptera. Proc. R. ent. Soc. London (A) **28**: 45–46, 1 fig.

954.—Eastop, V. F. A study of the Tramini (Homoptera-Aphididae). Trans. R. ent. Soc. London **104**: 385–413, 1 pl. 1 fig.

Eastwood, J. P. *see* Dicke & Eastwood.

955.—Eberhardt, A. I. & Steiner, G. Untersuchungen über das Schmarotzen von *Sarcophaga* spp. in Regenwürmer. Z. Morph. Oekol. Tiere, Berlin **41** 1952: 147–160, 3 figs. [Dipt.]

956.—Ebert, H. Entomologische Beobachtungen im Felde. Dtsch. ent. Z., Iris, Dresden **57** (1943) 1944: 77–80. [Lep.]

957.—Ebner, R. Ein neuer Fall von Veraenderungen an einer Heuschrecke (Orthoptera, Acrididae) durch einen Parasiten. Eos, Madrid **29**: 119–121, 1 fig.

958.—Edashige, T. & Hisamatsu, S. Some noteworthy moths of Kuroson, Tosa, Shikoku. Trans. Shikoku ent. Soc., Matsuyama **3**: 191. [Lep.]

Edashige, T. *see* Ishihara, Miyatake, Hisamatsu, Edashige & Sasaki; Shiraki & Edashige.

959.—Edgren, R. A. A bifurcated antenna in the soldier beetle, *Chauliognathus pennsylvanicus* (Coleoptera; Cantharidae). Nat. Hist. Misc., Chicago no. 114: 1–3, 1 fig.

960.—Edmunds, jr., G. F. The type species of some genera of Ephemeroptera. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 71–72.

961.—Edmun[d]s, jr., G. F. Taxonomic notes on the genus *Adenophleboides* Ulmer (Ephemeroptera : Leptophlebiidae). Rev. Zool. Bot. afr., Brussels **48** : 79–80.

962.—Edmunds, L. R. Collecting and culturing of native wood roaches in Ohio, with some additional notes on their parasites. Ent. News, Lancaster, Pa. **64** : 225–230, 1 fig. [Orth.]

963.—Edney, E. B. The construction and calibration of an electrical hygrometer suitable for microclimatic measurements. Bull. ent. Res., London **44** : 333–342, 5 figs.

964.—Edwards, G. A. & González, M. D. P. A influência de certos agentes químicos sôbre o metabolismo da broca do café. Bol. Fac. Filos. Ciênc. S. Paulo (Zool.) no. 18 : 77–90, 1 fig. [Col.]

965.—Edwards, J. G. The morphology of the male terminalia of beetles belonging to the genus *Priacma* (Cupesidae). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 28 : 1–8, 2 figs. [Col.]

966.—Edwards, J. G. The real source of *Amphizoa* secretions. Coleopt. Bull., Washington, D.C. **7** : 4.

967.—Edwards, J. G. The peculiar clasping mechanisms of the phallus of males of *Priacma* (Cupesidae, or Cupedidae). Coleopt. Bull., Washington, D.C. **7** : 17–20, 1 fig.

968.—Edwards, J. G. Species of the genus *Syneta* of the World (Coleoptera : Chrysomeloidea). Wasmann J. Biol., San Francisco **11** : 23–82, 2 pls.

Edwards, R. L. *see* Varley & Edwards.

Eglin, W. *see* Handschin & Eglin.

Egner, V. E. *see* Chadwick, Lovell & Egner.

969.—Ehara, S. Comparative anatomy of the genitalia and the internal reproductive organs of ladybeetles belonging to *Epilachna* (Systematic studies of Coccinellidae, I). J. Fac. Sci. Hokkaido Univ., Sapporo (Zool.) **11** 1952 : 21–33, 7 figs. [Col.]

Ehara, S. *see* Uchida & Ehara.

970.—Ehrenhardt, H. Ueber den Einfluss von Temperatur und Futterpflanze auf die Entwicklung von *Hyphantria cunea*. Nachr. dtsch. PflSchDienst., Ludwigsburg **5** : 145–150, 3 figs. [Lep.]

971.—Eichler, W. Notulae mallophagologicae XII. Neue Menacanthinae. Beitr. Vogelk., Leipzig **3** : 166–183, 27 figs.

972.—Eichler, W. Von Alexander Koenig gesammelte Federlinge I. Von Singvögeln und Spechten. Bonn. zool. Beitr. **4** : 333–343, 9 figs. [Malloph.]

973.—Eichler, W. Neue oder wenig bekannte Haustierparasiten I. *Werneckiella equi asini* nov. subsp. vom Esel. Mh. VetMed., Leipzig **8** : 445–447, 1 fig. [Malloph.]

973A.—Eichler, W. Mallophagen in Vogelnestern. Vogelwarte, Stuttgart **16** : 170–173.

974.—Eichler, W. Mallophagen-Synopsis. XXIV. Genus *Penenirmus* (incl. *Picophilopterus*). Zool. Anz., Leipzig **150** : 235–245, 19 figs.

975.—Eichler, W. Ein Haarling mit eigenartiger wirtlicher und geographischer Verbreitung. Z. Säugetierk., Berlin **17** (1952) : 171. [Malloph.]

976.—Eichler, W. Pompilidenstudien auf Hiddensee. Z. Tierpsychol., Berlin **10** : 25–29. [Hym.]

977.—Eichler, W. & Piechocki, R. Untersuchungen zur Epidemiologie der Ausserparasiten VI. Massenauftreten von Bussard-Federlingen. Arch. exp.VetMed., Berlin **6** [1953] : 249–261, 10 figs. [Malloph.]

978.—Eisa, E. A. & Soliman, A. A. The chemoattraction of food constituents to insects. I. Chemoattraction of foods to cockroaches. Bull. Soc. Fouad ler Ent., Cairo **37** : 167–172, 3 figs. [Orth.]

979.—Eisner, T. The histology of a sense organ in the labial palps of Neuroptera. J. Morph., Philadelphia, Pa. **93** : 109–121, 12 figs.

980.—Eliot, J. N. New records and a check list of butterflies from Hong Kong. Mem. Hong Kong biol. Circle no. 2 : 1–14, 3 pls. [Lep.]

981.—Eliot, N. Overwintering of migrant Lepidoptera on the Côte d'Azur. Entomologist, London **86** : 118–126.

982.—El-Kifl, A. H. Morphology of the adult *Tribolium confusum* Duv. and its differentiation from *Tribolium* (*Stene*) *castaneum* Herbst (Coleoptera : Tenebrionidae). Bull. Soc. Fouad 1er Ent., Cairo **37** : 173–249, 79 figs.

983.—Elkins, J. C. Notes on some Texas Reduviidae (Hemiptera, Reduviidae). J. Kansas ent. Soc., Manhattan **26** : 137–140, 8 figs.

984.—Ellenberger, F. & P., **Laurentiaux,** D. & **Ricour,** J. Note préliminaire sur la faune et un niveau insectifère des lentilles de grès et schistes noirs des gypses de la Vanoise (Trias supérieur). Bull. Soc. géol. Fr., Paris (6) **2** : 269–274, 1 pl. 1 fig. [Fossil.]

985.—Ellenby, C. Oxygen consumption and cell size. A comparison of the rate of oxygen consumption of diploid and triploid prepupae of *Drosophila melanogaster* Meigen. J. exp. Biol., London **30** : 475–491, 7 figs. [Dipt.]

986.—[Éllengorn, Ya. E. & **Ryabinina,** M. I.] On the works of Chzhu Si and Chzhan Go relating to the study of the fate of "surplus" spermatozoa penetrating into the egg cell. [In Russian.] Izv. Akad. Nauk SSSR, Moscow Ser. biol. **1953** no. 1 : 59–65, 9 figs. [Hym.]

987.—Ellis, L. L. The aquatic Hemiptera of Southeastern Louisiana (exclusive of the Corixidae). Amer. Midl. Nat., Notre Dame **48** 1952 : 302–329, 1 fig.

988.—Ellis, P. E. Social aggregation and gregarious behaviour in hoppers of *Locusta migratoria migratorioides* (R. & F.). Behaviour, Leiden **5** : 225–260, 10 figs. [Orth.]

989.—Ellis, P. E. The gregarious behaviour of marching *Locusta migratoria migratorioides* (R. & F.) hoppers. J. exp. Biol., London **30** : 214–234, 9 figs. [Orth.]

990.—Emden, F. I. van. The Harpalini genus *Anisotarsus* Dej. (Col. Carab.). Ann. Mag. nat. Hist., London (12) **6** : 513–547, 20 figs. 3 maps.

991.—Emden, F. I. van. Host-selection and systematic position of Ameniini (Diptera). Ent. mon. Mag., London **89** : 120.

992.—Emden, F. I. van. The larva of *Morion* and its systematic position (Coleoptera : Carabidae). Proc. Hawaii. ent. Soc., Honolulu **15** : 51–54, 4 figs.

993.—Emden, F. I. van. The male genitalia of Diptera and their taxonomic value. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 22–26.

994.—Emerson, A. E. The African genus *Apicotermes* (Isoptera : Termitidae). Ann. Mus. Congo belg., Tervuren (Sér. 8°) Sci. zool. **17** 1952 : 99–121, 4 figs.

995.—Emerson, A. E. The supra-organismic aspects of the society. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952 : 333–353, 1 fig.

996.—Emerson, K. C. New North American Mallophaga. J. Kansas ent. Soc., Manhattan **26** : 132–136, 9 figs.

997.—Emerson, K. C. A new species of *Carduiceps* (Mallophaga, Philopteridae). Proc. ent. Soc. Wash. **55** : 209–211, 4 figs.

998.—[Emme, A. M.] The salt-acid activation of the diapausing eggs of the mulberry silkworm. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **88** : 381–384, 3 figs. [Lep.]

999.—[Emme, A. M.] Changes with age in the sensitiveness of the diapause eggs of the mulberry silkworm with regard to different combined methods of activation. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **93** : 209–212. [Lep.]

1000.—Endô, R. A summary of the geologic section in Manchuria. Sci. Reps Saitama Univ., Urawa (B) **1** : 105–114.

1001.—Endrödi, S. Neue Lamellicornier. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4** : 113–116, 4 figs. [Col.]

1002.—Endrödi, S. Neue und bekannte Lamellicornier aus Fukien, China. Ent. Bl., Krefeld **49**: 153–168. [Col.]

1003.—Engel, F.-M. Das Wasser-Lebensraum und Lebensgemeinschaft. Teil II: Die fliessenden Gewässer. Mikrokosmos, Stuttgart **43**: 60–65, 12 figs.

1004.—English, K. M. I. Notes on the morphology and biology of *Ectenopsis vulpecula* Wied. var. *angusta* Macq. (Diptera, Tabanidae, Pangoniinae). Proc. Linn. Soc. N.S.W., Sydney **77**: 270–274, 11 figs.

1005.—Epling, C., **Mitchell,** D. F. & **Mattoni,** R. H. T. On the role of inversions in wild populations of *Drosophila pseudoobscura*. Evolution, Lancaster, Pa. **7**: 342–365, 4 figs. [Dipt.]

1006.—Erdös, J. Pteromalidae hungaricae novae. Acta biol., Budapest **4**: 221–247, 11 figs. [Hym.]

1007.—Erdös, J. Additamenta ad cognitionem faunae Chalcidoidarum in Hungaria et regionibus finitimus. V. 11. Thysanidae, 12. Aphelinidae, 17. Tetracampidae, 18. Elasmidae. Folia ent. hung., Budapest (N.S.) **6**: 165–184, 2 figs. [Hym.]

1008.—Ergene, S. Bevorzugung homochromen Milieus durch *Oedipoda*-Larven. Rev. Fac. Sci. Univ. Istanbul (B) **18**: 63–66. [Orth.]

1009.—Ergene, S. Homochromer Farbwechsel ohne Häutung bei Heuschrecken auf schwarzem Untergrund. Zool. Jb., Jena (Syst.) **81**: 604–609, 1 fig. [Orth.]

1010.—Ergene, S. Homochrome Farbanpassungen bei *Mantis religiosa*. Z. vergl. Physiol., Berlin **35**: 36–41. [Orth.]

1011.—Erlandsson, S. *Bombus agrorum* F. ssp. *gotlandicus* n. ssp. (Hym.). Ent. Tidskr., Stockholm **74**: 76–80, 1 fig.

1012.—Ermisch, K. Mordellidae des belgischen Congogebietes des Musée Royal du Congo Belge in Tervuren. Ann. Mus. Congo belg., Tervuren (Sér. 8°) Sci. zool. **22** (1952): 1–105, 21 figs. [Col.]

1013.—Ermisch, K. Ueber die Fåhraeus'schen Typen südafrikanischer Mordelliden (Coleoptera, Mordellidae). Ark. Zool., Stockholm (N.S.) **5**: 297–319, 12 figs.

1014.—Ermisch, K. Die Käfer des sächsischen Vogtlandes. 4. Nachtrag. Ent. Bl., Krefeld **49**: 95–110. [Col.]

1015.—Esaki, T. The occurrence of a Mutillid wasp in Micronesia. Annot. zool. jap., Tokyo **17** 1938: 431–432, 1 fig. [Hym.]

1016.—Español C., F. Misiones saharianas de l'Institut scientifique chérifien (1950–1951) Col. Tenebrionidae. Bull. Soc. Sci. nat. Maroc, Rabat **31** (1951): 287–312, 8 figs.

1017.—Español Coll, F. Helopinae de la zona mediterránea de Marruecos (Col. Tenebrionidae). Eos, Madrid **29**: 71–83, 1 fig.

1018.—Español Coll, F. Los *Colpotus* del Mediterráneo occidental (Col. Tenebrionidae). Eos, Madrid **29**: 123–142, 9 figs.

1019.—Esquivel, L. & **De Santis,** L. Descripción de una nueva especie de Cinípido galígeno de la República argentina (Hymenoptera: Cynipoidea). Rev. Fac. Agron., Eva Peron **29**: 27–34, 3 figs.

1020.—Essig, E. O. Aphid miscellany. Pan-Pacif. Ent., San Francisco **29**: 1–13. [Hem.]

1021.—Essig, E. O. A remarkable new Aphid from Israel. Pan-Pacif. Ent., San Francisco **29**: 127–128, 1 fig. [Hem.]

1022.—Essig, E. O. Some new and noteworthy Aphidae from western and southern South America (Hemiptera-Homoptera). Proc. Calif. Acad. Sci., San Francisco **28**: 59–164, 56 figs.

Essig, E. O. *see* Hottes & Essig.

1023.—Esteves de Sousa, A. Reconhecimento bioecológico, preliminar, da região de Mossurize. Moçambique, Lourenço Marques no. 74: 103–166, 12 pls. 1 fidg. map. [Dipt.]

1024.—Etcheverry C., M. Syrphidae de Tarapacá. Rev. chil. Hist. nat., Victoria, Valparaiso **51-53** (1947–1949) 1951 : 355–358. [Dipt.] [Cf. Z.R. **89** 1952 No. **904.**]

1025.—Evans, H. E. The Mexican species of *Allaporus* (Hymenoptera : Pompilidae). J. Kansas ent. Soc., Manhattan **26** : 26–31, 10 figs.

1026.—Evans, H. E. Comparative ethology and the systematics of spider wasps. Syst. Zool., Washington, D.C. **2**: 155–172, 5 figs. [Hym.]

1027.—Evans, H. E., **Lin,** Cheng Shan & **Yoshimoto,** C. M. A biological study of *Anoplius apiculatus autumnalis* (Banks) and its parasite, *Evagetes mohave* (Banks) (Hymenoptera, Pompilidae). J. New York ent. Soc. **61** : 61–78, 1 pl.

Evans, J. O. *see* Gardner & Evans.

Evans, T. C. *see* Beams, Sedar & Evans.

1028.—Evans, W. H. A catalogue of the American Hesperiidae indicating the classification and nomenclature adopted in the British Museum (Natural History). Part III (groups E, F, G) Pyrginae. Section 2. London, Brit. Mus. (Nat. Hist.) v & 246 pp. pls. 26–53. [Lep.]

1029.—Evans, W. H. A note on the Indian species of the genus *Lycaenopsis* Felder (Lepidoptera-Lycaenidae). J. Bombay nat. Hist. Soc. **51** : 755.

1030.—Evans, W. H. Notes on Hesperiidae (Lepidoptera) from Madagascar. Nat. malgache, Tananarive **4** 1952 : 87–88, 1 fig.

1031.—Evens, F. M.-J.-C. Dispersion géographique des Glossines au Congo belge. Mém. Inst. Sci. nat. Belg., Brussels (2) fasc. 48 : 1–70, 1 fldg. map. [Dipt.]

1032.—Everly, R. T. The effect of the lesser clover leaf weevil on the seed yields of mammoth red clover. Proc. Indiana Acad. Sci., Indianapolis **62** : 217–222. [Col.]

1033.—Ewer, D. W. The anatomy of the nervous system of the tree-locust, *Acanthacris ruficornis* (Fab.) I. The adult metathorax. Ann. Natal Mus., Pietermaritzburg **12** : 367–381, 13 figs. [Orth.]

1034.—Ewer, D. W. & **Ripley,** S. H. On certain properties of the flight muscles of the Orthoptera. J. exp. Biol., London **30** : 170–177, 1 pl. 3 figs.

Ewer, D. W. *see* Ripley & Ewer.

1035.—Faber, A. Laut- und Gebärdensprache bei Insekten : Orthoptera (Geradflügler) I. Stuttgart, Ges. Fr. Mus. Naturk. [4+] 198 pp. 7 pls. (1 col.) 4 figs. 8 fldg. tables.

1036.—Faber, A. Eine unbekannte Art der Lauterzeugung bei Käfern. Das Trommeln von *Nothorhina muricata* Dalm. Jh. Ver. vaterl. Naturk. Württemb., Stuttgart **108** : 71–73, 2 figs. [Col.]

1037.—Faber, A. Ausdrucksbewegungen und besonders Lautäusserung bei Insekten als Beispiel für eine vergleichend - morphologische Betrachtung der Zeitgestalten. Verh. dtsch. zool. Ges., Leipzig **1952** : 106–115, 4 figs. [Orth.]

1038.—Faester, K. Westeuropäische Sphegiden I. *Oxybelus* Latr. Copenhagen, Univ. zool. Mus. 1949 46 pp. 2 pls. [Hym.]

1039.—Fagel, G. Contribution à la connaissance des Staphylinidae XXII, XXV. Bull. Ann. Soc. ent. Belg., Brussels **89** : 203–208, 282–299. [Col.]

1040.—Fagel, G. Contribution à la connaissance des Staphylinidae. XVIII, XIX, XX, XXIII, XXIV. Bull. Inst. sci. nat. Belg., Brussels **29** no. 20 : 1–31, 28 figs. ; no. 21 : 1–8 ; no. 24 : 1–12, 15 figs. ; no. 40 : 1–11, 19 figs. ; no. 41 : 1–19, 15 figs. [Col.]

1041.—Failla, S. Note topografiche su alcuni Coleotteri. Boll. Soc. ent. ital., Genoa **82** (1952) : 99.

1042.—Fain, A. Notes sur *Cordylobia rodhaini* Ged. Etude des terminalia des mouches adultes et des pièces chitineuses de la partie antérieure de la larve. Rev. Zool. Bot. afr., Tervuren **48** : 306–312, 6 figs. [Dipt.]

1043.—Fairchild, G. B. Notes on Neotropical Tabanidae (Diptera) with descriptions of new species. Ann. ent. Soc. Amer., Columbus **46** : 259–280, 2 pls.

1044.—Fairchild, G. B. A note on *Hertigia hertigi* Fairchild and description of the female (Diptera Psychodidae). Proc. ent. Soc. Washington **55** : 101–102, 1 fig.

1045.—Fairchild, G. B. Arboreal Tabanidae in Panama (Diptera). Proc. ent. Soc. Wash. **55** : 239–243.

1046.—Fairchild, G. B. Notes on *Phlebotomus* from the Australasian region (Dipt. Psychodidae). Proc. Linn. Soc. N.S.W., Sydney **77** 1952 : 189–208, 77 figs.

1047.—Fairchild, G. B. Tabanidae from the State of Chiapas, Mexico, with descriptions of two new species (Diptera). Psyche, Cambridge, Mass. **60** : 41–51, 2 figs.

1048.—Fairchild, G. B. & **Hertig,** M. Notes on the *Phlebotomus* of Panama (Diptera, Psychodidae) IX–XI. Ann. ent. Soc. Amer., Columbus **45** (1952) : 505–528, 7 pls. ; **46** : 21–34, 5 pls., 373–385, 3 pls.

Fal'kenshteĭn, B. Yu. *see* Beĭ-Bienko, Bogdanov-Kat'kov, Fal'kenshteĭn, Chigarev & Shchegolev.

1049.—Farrier, M. H. & **Tauber,** O. E. *Dioryctria disclusa* Heinrich n. sp. (Phycitidae) and its parasites in Iowa. Iowa St. Coll. J. Sci., Ames **27** : 495–507, 2 figs. [Lep.]

1050.—Farský, R. The cicadines on the agricultural plants in the environs of Praha. [In Czech with English summary.] Zool. ent. Listy, Brno **1** 1952 : 75–80, 6 figs. [Hem.]

1051.—Fassati, M. Sur deux espèces du genre *Amara* sg. *Zezea* Cs. et une nouvelle dénomination de l'espèce *Amara obesa* Bal. (nec Say) (Col.). Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 391 : 223–232, 4 figs.

1052.—Federley, H. Kreuzungsversuche mit Lepidopteren. Z. Lepid., Krefeld **3** : 1–32, 2 pls. 6 figs.

Feliciano, P. *see* Baisas & Feliciano.

1053.—Fender, K. M. New species of *Podabrus* from western North America (Coleoptera : Cantharidae). Pan-Pacif. Ent., San Francisco **29** : 170–175, 2 figs.

1054.—Fender, K. M. & **Baker,** J. H. Notes on the migration of *Nymphalis californica*. Lepid. News, New Haven **7** : 15.

1055.—Fender, K. M. & **Jewett,** jr., S. G. Two new races of *Euphydryas anicia* Doubleday & Hewitson (Lepidoptera : Nymphalidae). Wasmann J. Biol., San Francisco **11** : 115–119.

1056.—Fenili, G. A. Contributo alla conoscenza dell'*Attelabus nitens* Scop. (Coleoptera Curculionidae). Redia, Florence **37** 1952 : 195–281, 40 figs.

1057.—Fennah, R. G. Revisionary notes on Neotropical Monecphorine Cercopoidea (Homoptera). Ann. Mag. nat. Hist., London (12) **6** : 337–360, 15 figs.

1058.—Fennah, R. G. A new froghopper from Bolivia (Homoptera ; Cercopoidea). Proc. biol. Soc. Washington **66** : 51–52, 7 figs.

1059.—Fennah, R. G. Some aspects of the food-problem of Homoptera in the humid areas of the Neotropical Region. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 260–265.

Fenton, B. J. *see* Ives, Fenton, Yost & Levine.

1060.—Ferguson, D. C. On the identity and status of *Eubaphe lamae* Freeman (Lepidoptera, Arctiidae). Canad. Ent., Ottawa **85** : 371–373, 9 figs.

1061.—Ferguson, D. C. Revision of the *occiduaria-argillacearia* complex of the genus *Itame*, with descriptions of new races (Lepidoptera, Geometridae). Canad. Ent., Ottawa **85** : 453–461, 2 figs.

1062.—Fernández, L. G. Los primeros estados de las larvas de las miasis humanas en el g. *Calliphora* (Diptera Cyclorhapha). Rev. ibér. Parasit., Granada **13** : 259–288, 2 pls.

1063.—Féron, M. Caractères morphologiques et éthologiques permettant de distinguer chez *Capnodis tenebrionis* L. les imagos de nouvelle génération au cours de l'été (Col. Buprestidae). Bull. Soc. ent. Fr., Paris **58** : 61–63.

1064.—Ferrão, W. P. C. da F. Primeira tentativa de uma interpretação sinecológica da entomofauna florestal do Gerês. Agron. lusit., Sacavem **12** 1950 [? 1953] : 499–514, 2 pls., 2 fldg. tables.

1065.—**Ferreira, M. C.** Morfologia dos Coleópteros africanos I. Família Tenebrionidae. No. 2—Tribos Opatrini, Adesmiini, Eurychorini e Pycnocerini. Bol. Soc. Estud. Moçambique, Lourenço Marques no. 81: sep. 1–33, 12 pls.

1066.—**Ferreira, M. C.** Contribuição para o estudo dos cerambicíneos da África do Sul. III. Tribo dos Oemini. Bol. Soc. Estud. Moçambique, Lourenço Marques no. 82: sep. 1–13, 1 pl. [Col.]

1067.—**Ferreira, M. C.** Contribuição para o estudo dos Escarabaeídeos da África do Sul. Mem. Mus. de Castro, Lourenço Marques no. 2: 23–26, 1 fig. [Col.]

1068.—**Ferreira, M. C.** Contribution à l'étude des Stenosini d'Afrique du Sud et de Madagascar (Coléoptères). Nat. malgache, Tananarive **4** 1952: 145–153, 23 figs. 1 map.

1069.—**Ferreira, M. C. & Veiga Ferreira, G. da.** Uma espécie nova do género *Delochilus* Thomson (Col. Long.). Bol. Ass. Filos. nat., Porto **3** no. 4: 21–27, 1 fig.

1070.—**Ferreira, M. C. & Veiga Ferreira, G. da.** Uma espécie nova de *Acanthophorus* Serville. Rev. Fac. Ciênc., Lisbon (2C) **2** 1952: 121–132. [Col.]

1071.—**Ferrière, C.** Les parasites de *Lithocolletis platani* en Italie. Boll. Ist. Ent. Univ. Bologna **19**: 395–404, 4 figs. [Lep., Hym.]

1072.—**Ferrière, C.** Encyrtides paléarctiques (Hym. Chalcidoidea). Nouvelle table des genres avec notes et synonymies. Mitt. schweiz. ent. Ges., Berne **26**: 1–45, 91 figs.

1073.—**Ferrière, C.** Notes on two genera of Encyrtidae new to Britain (Hymenoptera: Chalcidoidea). Proc. R. ent. Soc. London (B) **22**: 1–4, 2 figs.

1074.—**Ferrière, C.** Un nouvel Encyrtide (Hym. Chalcidoidea) de la Guinée française. Rev. Path. vég., Paris **32**: 115–119, 6 figs.

1075.—**Ferris, G. F.** Atlas of the scale insects of North America. Volume VI. The Pseudococcidae (Part II). Stanford Univ. Press, California; London, G. Cumberledge, Oxford Univ. Press pp. i–vii & 279–506, 193 figs. [Hem.]

1076.—**Ferris, G. F.** Illustrations of three species of sucking lice, with notes on a fourth species (Insecta: Anoplura). Microentomology, Stanford Univ. **18**: 52–57, 4 figs.

1077.—**Ferris, G. F.** Report upon scale insects collected in China (Homoptera: Coccoidea). Part IV. Microentomology, Stanford Univ. **18**: 59–84, 17 figs.

1078.—**Ferris, G. F. & Usinger, R. L.** A new species of *Aphraniola* from Cambodia (Hemiptera, Cimicidae). Rev. franç. Ent., Paris **20**: 138–139.

1079.—**Fiebig, W.** Beitrag zur Kenntnis der Grossschmetterlinge von Bad Essen und des Essener Berg. Jber. naturw. Ver. Osnabrück **25** 1950: 93–116. [Lep.]

1080.—**Fiedler, C.** Unbekannte Cryptorhynchiden aus Süd-Amerika. Zool. Anz., Leipzig **151**: 59–68. [Col.]

1081.—**Fiedler, O. G. H.** A new African tick parasite, *Hunterellus theilerae* sp. n. Onderstepoort J. vet. Res., Pretoria **26**: 61–63, 1 pl. [Hym.]

1082.—**Figg-Hoblyn, J. P.** A new species of *Acmaeodera* from western Nevada (Coleoptera: Buprestidae). Pan-Pacif. Ent., San Francisco **29**: 219–221, 1 fig.

1083.—**Figueiredo, jr., E. R. de.** Sôbre uma praga do abacateiro *Euglyphis fibra* (Schaus, 1890). Biológico, São Paulo **19**: 74–77, 2 figs. [Lep.]

1084.—**Figueroa P., A.** Catálogo de los artropodos de las clases Arachnida e Insecta encontrados en el hombre, los animales y las plantas de la República de Colombia—I–III. Acta agron. Palmira **2** 1952: 127–139, 199–223; **3**: 1–7.

Filho *see* Oiticica Filho.

1085.—**[Filippovich, Yu. B.] Free amino acids in the haemolymph of the oak silkworm.** [In Russian.] Dokl. vsesoyuzn. Akad. sel'skokhoz. Nauk Im. Lenina, Moscow **18** pt. **9**: 36–44, 5 figs. [Lep.]

1086.—Fingerman, M. & **Brown,** jr., F. A. Color discrimination and physiological duplicity of *Drosophila* vision. Physiol. Zool., Chicago **26** : 59–67, 3 figs. [Dipt.]

Fingerman, M. *see* Stephens, Fingerman & Brown.

1087.—Fink, R. Morphologische und physiologische Untersuchungen an den intrazellularen Symbionten von *Pseudococcus citri* Risso. Z. Morph. Oekol. Tiere, Berlin **41** 1952 : 78–146, 30 figs. [Hem.]

Finney, G. L. *see* Maeda, Hagen & Finney.

1088.—Fiori, G. I *Seminolus* Muls. et Rey. III contributo alla conoscenza della famiglia Byrrhidae (Coleoptera). Redia, Florence **37** 1952 : 371–404, 19 figs.

1089.—Fiori, G. & **Mellini,** E. Relazione su un viaggio di studio condotto dall'Istituto di Entomologia dell'Università di Bologna in Algeria. Boll. Ist. Ent. Univ. Bologna **19** 1952: 121–135.

Fiori, G. *see* Mellini & Fiori.

1090.—Fisher, W. S. New species of *Buprestis* from Cuba. Mem. Soc. cubana Hist. nat., Havana **21** : 329–330, 1 fig. [Col.]

1091.—Fisher, W. S. New Cerambycid beetles belonging to the tribe Rhinotragini (Coleoptera). Pan-Pacif. Ent., San Francisco **29** : 14–17.

1092.—Fisk, F. W. & **Shambaugh,** G. F. Protease activity in adult *Aedes aegypti* mosquitoes as related to feeding. Ohio J. Sci., Columbus **52** 1952 : 80–88, 1 fig. [Dipt.]

Flagg, W. *see* Scholander, Flagg, Hock & Irving.

1093.—Flanders, S. E. Aphelinid biologies with implications for taxonomy. Ann. ent. Soc. Amer., Columbus **46** : 84–94. [Hym.]

Fleming, H. *see* Crane & Fleming.

1094.—Fletcher, D. S. A revision of the genus *Carecomotis* (Lep. Geometridae). Ann. Mag. nat. Hist., London (12) **6** : 100–142, 4 pls.

1095.—Fletcher, D. S. Notes on some species of Geometridae. Ent. Gaz., London **4** : 225–235, 1 col. pl. 16 figs. [Lep.]

1096.—[Florov, D. N.] The zoogeographical significance of perpetual frost. (The May cockchafer in Eastern Siberia.) [In Russian.] Zool. Zh., Moscow **31** 1952 : 875–882. [Col.]

1097.—Fluke, C. L. The genus *Dolichogyna* (Diptera, Syrphidae). Acta zool. lilloana, Tucuman **12** (1951) 1952 : 465–478, 27 figs.

1098.—Fluke, C. L. Some Syrphid fly synonymy. Ent. News, Lancaster, Pa. **64** : 208–209. [Dipt.]

1099.—Fluke, C. L. New Syrphidae from North America (Diptera). J. Kansas ent. Soc., Manhattan **26** : 125–129, 6 figs.

Fluke, C. L. *see* Sorenson & Fluke.

1100.—Focarile, A. Studi sui Carabidae italiani-1°. Boll. Soc. ent. ital., Genoa **82** 1952 : 72–79, 1 map. [Col.]

1101.—Foltin, H. Etwas über das Aufsuchen der Psychiden-Säcke. Z. wien. ent. Ges., Vienna **38** : 7–12. [Lep.]

1102.—Foltin, H. Beitrag zur Fauna von Oberösterreich. Abschliessender Beitrag zur Fauna des Mühlviertels. Z. wien. ent. Ges., Vienna **38** : 154–160. [Lep.]

1103.—Fonseca, J. C. da. Contribuição para o estudo do *Coccus hesperidum* L. (Hemiptera Coccoidea). I—Estudo sistemático e morfológico. Brotéria, Lisbon Ci. nat. **22** : 5–53, 14 figs., 97–114, 1 fig.

1104.—Foote, R. H. A new gall midge infesting holly (Diptera : Itonididae). Ent. News, Lancaster, Pa. **64** : 197–201, 11 figs.

1105.—Foote, R. H. Pictorial keys to the mosquitoes of medical importance IV. Anglo-Egyptian Sudan. Mosquito News, Albany, N.Y. **13** : 255–258, illus. [Dipt.]

1106.—Foote, R. H. The pupal morphology and chaetotaxy of the *Culex* subgenera *Melanoconion* and *Mochlostryax* (Diptera, Culicidae). Proc. ent. Soc. Washington **55** : 89–100, 3 figs.

Foote, R. H. *see* Sommerman & Foote.

1107.—Forbes, W. T. M. Note on multimodal curves. Ann. ent. Soc. Amer., Columbus **46** : 221–224, 3 figs.

1108.—Forbes, W. T. M. A draft key to *Taygetis* (Satyrinae). Lepidopt. News, New Haven, Connecticut **6** (1952) : 97–98.

1109.—Ford, E. B. The genetics of polymorphism in the Lepidoptera. Advanc. Genet., New York **5** : 43–87.

1110.—Ford, E. B. Polymorphism and taxonomy. Rep. 7th Sci. Congr. Christchurch [N.Z.] 1951 : 245–253. [Lep.]

Ford, E. B. *see* Dowdeswell & Ford.

1111.—Ford, J. Tsetse fly in Ankole : a Hima song. Uganda J., Kampala **17** : 186–188. [Dipt.]

1112.—Ford, W. K. Lancashire and Cheshire Odonata (A preliminary list). Northw. Nat., Arbroath (N.S.) **1** : 227–233.

1113.—Forsslund, K. H. Catalogus insectorum sueciae. Additamenta II. Trichoptera. Opusc. ent., Lund **18** : 72–74.

1114.—Förster, H. Ueber die Ernährungsweise von *Aradus depressus* F. (Heteroptera : Aradidae). Beitr. Ent., Berlin **3** : 395–404.

1115.—Forster, W. Beiträge zur Kenntnis zentralasiatischer Lycaeniden. Dtsch. ent. Z., Iris, Dresden **54** (1940) 1941 : 70–84, 2 pls. [Lep.]

1116.—Forster, W. & **Wohlfahrt,** T. A. Die Schmetterlinge Mitteleuropas. Stuttgart, Franckh'sche Verlagshandlung Lief. 2 1952 Bd. I : 33–64, figs. 19–36 and Bd. II : 33–64, pls. 5–8 (col.), figs. 14–21. [Lep.]

1117.—Fortescue-Foulkes, J. Seasonal breeding and migrations of the desert locust (*Schistocerca gregaria* Forskål) in south-western Asia. Anti-locust Mem., London no. 5 : 1–35, 14 maps 1 fig. [Orth.]

Fox, A. S. *see* Chovnick & Fox.

1118.—Fox, C. J. S. & **Stirrett,** G. M. Annotated catalogue of insect and other invertebrate pests of tobacco in Canada. Rep. ent. Soc. Ontario, Toronto 1952 [1953] : 48–54.

1119.—Fox, H. M. & **Sidney,** J. The influence of dissolved oxygen on the respiratory movements of caddis larvae. J. exp. Biol., London **30** : 235–237, 1 fig. [Trichopt.]

1120.—Fox, H. S. & **Thomas,** B. W. Immunogenetic studies of *Drosophila melanogaster* III. Further evidence of genic interaction in the determination of antigenic specificity. Genetics, Lancaster, Pa. **2** : 152–167, 1 fig. [Dipt.]

1121.—Fox, I. Notes on the cat flea in Puerto Rico. Amer. J. trop. Med. Hyg., Baltimore **2** : 337–342, 4 figs. [Siphonapt.]

1122.—Fox, I. Notes on Puerto Rican mosquitoes including a new species of *Culex*. J. Parasit., Lancaster. Pa. **39** : 178–181, 1 pl. [Dipt.]

1123.—Fox, I. Notes on Puerto Rican Simuliidae from light traps (Diptera). Proc. ent. Soc. Wash. **55** : 135–142, 10 figs.

1124.—Fox, I. & **Maldonado Capriles,** J. Light trap studies on mosquitoes and *Culicoides* in western Puerto Rico. Mosquito News, Albany, N.Y. **13** : 165–166. [Dipt.]

1125.—Fox, R. M. The taxonomic value of male genitalia in the Ithomiidae (Lepidoptera). Ent. News, Lancaster, Pa. **64** : 141–143.

1126.—Fox, R. M. & **Stabler,** R. M. *Basilia calverti* n. sp. (Diptera : Nycteribiidae) from the interior long-legged bat. J. Parasit., Lancaster, Pa. **39** : 22–27, 2 figs.

1127.—Fraenkel, G. The nutritional value of green plants for insects. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 90–100, 1 fig.

1128.—Fraenkel, G. & **Brookes,** V. J. The process by which the puparia of many species of flies become fixed to a substrate. Biol. Bull., Lancaster, Pa. **105** : 442–449, 2 figs. [Dipt.]

1129.—Fragoso, S. A. Sôbre *Bernathonomus* (Lepidoptera, Heterocera, Arctiidae). Rev. brasil. Biol., Rio de Janeiro **13** : 179–189, 36 figs.

1130.—Fraile, A. & Sang, J. H. Mutaciones letales en *Drosophila melanogaster*. Alteración del balance normal de PO_4''' y NH_4 y efecto de la harmina. Genet. iber., Madrid **3** 1951 : 183–186. [Dipt.]

1131.—Fraisse, R. La croissance de la tête chez la larve du *Bombyx mori* L. en fonction du régime alimentaire. C.R. Acad. Sci., Paris **236** : 1613–1614. [Lep.]

Franceschi, T. *see* Conci & Franceschi.

1132.—Franciscolo, M. 26° contributo alla conoscenza dei Mordellidae (Coleoptera-Heteromera). Boll. Soc. ent. ital., Genoa **82** 1952 : 66–72, 18 figs.

1133.—Franciscolo, M. Results of the Armstrong College Expedition to Siwa Oasis (Libyan Desert), 1935, under the leadership of Prof. J. Omer-Cooper. *Anaspella antennata* n. sp. (Coleoptera : Mordellidae). Bull. Soc. Fouad 1er Ent., Cairo **37** : 251–253, 3 figs.

1134.—Franciscolo, M. Studio sul genere *Neocurtimorda* m. XXVII Contributo alla conoscenza dei Mordellidae (Col. Heteromera). Mem. Soc. ent. ital., Genoa **31** : 109–131, 64 figs.

1135.—Francke-Grosmann, H. Ueber die Brutfürsorge einiger an Kulturweiden lebender triebstechender Rüssler (Curculionidae) und ihre phytopathologische Bedeutung. Beitr. Ent., Berlin **3** : 468–478, 4 figs. [Col.]

1136.—Frankenberg, G. von. Das Schlüpfen der Ameisenjungfer. Mikrokosmos, Stuttgart **42** : 217–219, 6 figs. [Neur.]

1137.—Frankland, A. W. Locust sensitivity. Ann. Allergy, Minneapolis **11** : 445–453. [Orth.]

1138.—Franssen, C. J. H., Nijveldt, W. & Tjoa Tjien Mo. A gall midge injurious to pepper. Tijdschr. PlZiekt., Wageningen **59** : 178–180, 11 figs. [Dipt.]

1139.—Franz, E. Eine neue Lamiide aus Neu-Guinea, *Giganteopalpus helleri* n. gen. n. sp. (Ins. Col.). Senckenbergiana, Frankfurt a. M. **34** : 37–39, 1 fig.

1140.—Franz, E. Zur Gattung *Oihus* (Ins. Col. Ceramb.). Senckenbergiana, Frankfurt a. M. **34** : 39–41, 2 figs.

1141.—Fraser, F. C. Contribution à l'étude de la zone d'inondation du Niger (mission G. Remaudière 1950) I. Odonata, Neuroptera and Mecoptera. Bull. Inst. franç. Afr. noire, Dakar **15** : 1523–1528, 1 fig.

1142.—Fraser, F. C. Gomphidae. Coll. zool. Selys Longchamps fasc. 21 : 1–36, 11 figs. Brussels, Inst. Sci. nat. Belg. [Odon.]

1143.—Fraser, F. C. *Aeshna caerulea* (Ström) and *Somatochlora arctica* (Zett.) in Perthshire (Odonata). Ent. mon. Mag., London **89** : 33–36, 2 figs.

1144.—Fraser, F. C. The characters of the Anal vein in *Lestoidea* Tillyard with some remarks on the position of the genus in the order Odonata. Ent. mon. Mag., London **89** : 227–230, 2 figs.

1145.—Fraser, F. C. Methods of exophytic oviposition in Odonata. Ent. mon. Mag., London **89** : 252–254.

1146.—Fraser, F. C. Fact and fiction. A note on the resting habits of *Kallima*, the leaf-butterfly. Ent. mon. Mag., London **89** : 278–279. [Lep.]

1147.—Fraser, F. C. Another new *Pseudagrion* from Madagascar (Odonata). Mém. Inst. sci. Madagascar, Tananarive (E) **3** : 29–31, 1 fig.

1148.—Fraser, F. C. Further notes on Samoan Odonata belonging to the Ischnurine complex of species, with descriptions of two new species and some unknown females. Proc. R. ent. Soc. London (B) **22** : 119–126, 18 figs.

1149.—Fraser, F. C. Notes on the family Gomphidae with descriptions of a new species and the female of another (Order Odonata). Proc. R. ent. Soc. London (B) **22** : 189–194, 1 pl.

1150.—Fraser, F. C. New genera and species of Libellulines from the Belgian Congo. Rev. Zool. Bot. afr., Brussels **48** : 242–256, 4 figs. [Odon.]

1151.—Fraser, F. C. A new giant dragonfly from the Belgian Congo. Rev. Zool. Bot. afr., Brussels **48**: 301–305, 2 figs. [Odon.]

1152.—Fredeen, F. J. H., **Spinks,** J. W. T., **Anderson,** J. R., **Arnason,** R. P. & **Rempel,** J. G. Mass tagging of black flies (Diptera: Simuliidae) with radiophosphorus. Canad. J. Zool., Ottawa **31**: 1–15, 1 pl. 8 figs.

Fredeen, F. J. H. *see* Shemanchuk, Spinks & Fredeen.

1153.—Freeman, P. A new genus and species of Mycetophilidae (Diptera), allied to *Pnyxia* Johannsen, from a cave in Italy. Boll. Soc. ent. ital., Genoa **82** 1952: 20–23, 9 figs.

1154.—Freeman, P. Two new species of Psychodidae (Diptera: Nematocera) from Britain. Proc. R. ent. Soc. London (B) **22**: 69–71, 2 figs.

1155.—Freeman, P. Chironomidae (Diptera) from western Cape Province—I, II. Proc. R. ent. Soc. London (B) **22**: 127–135, 3 figs., 201–213.

1156.—Freeman, P. & **De Meillon,** B. Simuliidae of the Ethiopian region. London, Brit. Mus. (Nat. Hist.) vii & 224 pp. 68 figs. 1 frontisp. [Dipt.]

1157.—Freeman, T. N. Some problems of insect biology in the Canadian Arctic. Arctic, Montreal **5** 1952: 175–177, 1 fig.

1158.—Freeman, T. N. The spruce budworm, *Choristoneura fumiferana* (Clem.) and an allied new species on pine (Lepidoptera: Tortricidae). Canad. Ent., Ottawa **85**: 121–127, 22 figs. (18 col.)

1159.—Freeman, T. N. A note on the occurrence of a European Tortricid, *Cnephasia virgaureana* Treit., in Newfoundland with new synonymy (Lepidoptera). Canad. Ent., Ottawa **85**: 291.

Freire-Maia, A. *see* Freire-Maia, Zanardini & Freire-Maia.

1160.—Freire-Maia, N., **Zanardini,** I. F. & **Freire-Maia,** A. Chromosome variation in *Drosophila immigrans*. Dusenia, Curitiba **4**: 303–311, 1 pl. [Dipt.]

Freitas, J. R. de *see* Silveira Guedes, Freitas & Xavier.

1161.—French, R. A. Insect migration records, 1952. Entomologist, London **86**: 157–164. [Lep.]

1162.—Freund, A. Beobachtungen über die Gattung *Yponomeuta* Latr. (Yponomeutidae, Lep.). NachrBl. bayer. Ent., Munich **2**: 4–6.

1163.—Frey, G. Neue afrikanische *Onthophagus* (Col. Scarab.). Ent. Arb., Munich **4**: 304–308, 4 figs.

1164.—Frey, R. Sciaridae aus Island. Ent. Medd., Copenhagen **26**: 457–461, 2 figs. [Dipt.]

1165.—Friauf, J. J. An ecological study of the Dermaptera and Orthoptera of the Welaka area in northern Florida. Ecol. Monogr., Durham **23**: 79–126, 17 figs.

1166.—Frick, K. E. Some additions and corrections to the species list of North American Agromyzidae (Diptera). Canad. Ent., Ottawa **85**: 68–76.

1167.—Frick, K. E. Further studies on Hawaiian Agromyzidae (Diptera) with descriptions of four new species. Proc. Hawaii. ent. Soc., Honolulu **15**: 207–215.

1168.—Friedberg, F. On the incorporation of radioactive amino acids into the protein fraction of *Torula utilis*. Experientia, Basle **9**: 425. [Lep.]

Frings, H. *see* Knipe & Frings.

1169.—Frisch, K. v. Aus dem Leben der Bienen. 5th revd. edn. Berlin, Springer-Verlag vii & 159 pp. 101 figs. (2 col.). [Hym.]

1170.—Frisch, K. v. Die wechselseitigen Beziehungen und die Harmonie im Bienenstaat. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952: 271–292, 14 figs. [Hym.]

1171.—Frisch, K. v. Die Richtungsorientierung der Bienen. Verh. dtsch. zool. Ges., Leipzig **1952**: 58–72, 8 figs. [Hym.]

1172.—Frisch, K. v. Sprache und Orientierung der Bienen. Verh. naturh.-med. Ver. Heidelberg (N.F.) **19** 1951 Heft 1: 33–34. [Hym.]

1173.—Frisch, K. v., **Heran,** H. & **Lindauer,** M. Gibt es in der "Sprache" der Bienen eine Weisung nach oben oder unten? Z. vergl. Physiol., Berlin **35**: 219–245, 14 figs. [Hym.]

1174.—Frizzi, G. Etude cytogénétique d'*Anopheles maculipennis* en Italie. Extension des recherches à d'autres espèces d'anophèles. Bull. World Hlth Org., Geneva **9**: 335–344, 8 figs. [Dipt.]

1175.—Frizzi, G. Extension of the salivary chromosome method to *Anopheles claviger*, *quadrimaculatus* and *aquasalis*. Nature, London **171**: 1072, 1 fig. [Dipt.]

1176.—Fröbrich, G. Der "*Tribolium*-Imago-Faktor" (TIF) durch Carnitin ersetzbar. Naturwissenschaften, Berlin **40**: 556. [Col.]

1177.—Fröbrich, G. Die Caseindosierung in synthetischen Diäten für die Aufzucht von *Tribolium confusum* Duv. (Tenebrionidae, Coleoptera). Naturwissenschaften, Berlin **40**: 556. [Col.]

1178.—Fröbrich, G. & **Offhaus,** K. Neuer Befunde zur Ernährungsphysiologie des Reismehlkäfers *Tribolium confusum* Duval (Vorläufige Mitteilung). Verh. dtsch. zool. Ges., Leipzig **1952**: 361–365. [Col.]

1179.—Froeschner, R. C. & **Meiners,** E. P. The Languriidae and Erotylidae (Coleoptera) of Missouri with notes and keys. J. Kansas ent. Soc., Manhattan **26**: 18–25, 4 figs.

1180.—Frohne, W. C. Mosquito breeding in Alaskan salt marshes, with especial reference to *Aëdes punctodes* Dyar. Mosquito News, Albany, N.Y. **13**: 96–103. [Dipt.]

1181.—Frohne, W. C. Natural history of *Culiseta impatiens* (Wlk.), (Diptera, Culicidae), in Alaska. Trans. Amer. micr. Soc., Columbus, Ohio **72**: 103–118.

1182.—Frommhold, E. Rhynchoten als Froschnahrung. Beitr. Ent., Berlin **3**: 419–423. [Hem.]

1183.—Frost, S. W. Tabanidae attracted to light. Ann. ent. Soc. Amer., Columbus **46**: 124–125. [Dipt.]

1184.—Frost, S. W. Response of insects to black and white light. J. econ. Ent., Menasha **46**: 376–377.

Frota-Pessôa, E. *see* Aragão, Frota-Pessôa & Margem.

1185.—Fujita, H. Factors affecting the type of population density effect upon average rate of oviposition. [In Japanese with English summary.] Res. Popul. Ecol., Kyoto **2**: 1–7, 3 figs.

1186.—Fujita, H. & **Utida,** S. The effect of population density on the growth of an animal population. Ecology, Lancaster, Pa. **34**: 488–498, 8 figs.

1187.—Fukaya, M. On some fundamental problems for predicting the occurrence of the rice stem borer. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1950: 25–31. [Lep.]

1188.—Fukaya, M., **Chino,** H. & **Inoue,** H. On the larval diapause in the rice stem borer (4). [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** 1952: 83–88, 2 pls. [Lep.]

1189.—Fukuda, S. Determination of voltinism in the univoltine silkworm. Proc. Japan Acad., Tokyo **29**: 381–384. [Lep.]

1190.—Fukuda, S. Determination of voltinism in the multivoltine silkworm. Proc. Japan Acad., Tokyo **29**: 385–388. [Lep.]

1191.—Fukuda, S. Alteration of voltinism in the silkworm following transection of pupal oesophageal connectives. Proc. Japan Acad., Tokyo **29**: 389–391. [Lep.]

1192.—Fukuda, S. Alteration of voltinism in the silkworm by decapitating the pupa. [In Japanese with English summary.] Zool. Mag., Tokyo **60** 1951: 119–121. [Lep.]

1193.—Fukuda, S. & **Nitta,** S. Penetration into the nervous ganglia, especially the brain, by the larvae of *Sturmia sericariae*. [In Japanese.] Zool. Mag., Tokyo **62**: 347–348. [Dipt.]

Fukushima, T. *see* Koyama & Fukushima.

1194.—Fullaway, D. T. New species and varieties of *Opius* (Hymenoptera, Braconidae). Proc. ent. Soc. Washington **55** : 308–314.

1195.—Fullaway, D. T. Three new species of *Eurytoma* (Hymenoptera : Eurytomidae). Proc. Hawaii. ent. Soc., Honolulu **15** : 33–36.

Fullaway, D. T. *see* Adachi & Fullaway.

1196.—Furukawa, H. Some tropical elements of Orthopteroidea from Oki Is. Zool. Mag., Tokyo **53** 1941 : 299–302.

1197.—Furukawa, H. A note on the larger green bush cricket, *Calyptotrypus hibinonis* Matsumura (Orthopt.). Zool. Mag., Tokyo **51** 1939: 561–572, 1 pl. 28 figs.

1198.—Gabaldón, A. & **Cova-García,** P. Zoogeografía de los anofelinos en Venezuela. IV. Su posición en la región neotrópica y observaciones sobre las especies de esta región. Rev. Sanid. Asist. soc., Caracas **17** 1952 : 173–210, 12 fldg. pls. [Dipt.]

1199.—Gabe, M. Données histologiques sur les glandes endocrines céphaliques de quelques Thysanoures. Bull. Soc. zool. France, Paris **78** : 177–193, 1 pl.

1200.—Gabe, M. Quelques acquisitions récentes sur les glandes endocrines des Arthropodes. Experientia, Basle **9** : 352–357, 4 figs.

Gabe, M. *see* Arvy, Bounhiol & Gabe ; Arvy & Gabe ; Bounhiol, Gabe & Arvy.

1201.—Gäbler, H. Dipterenlarven als Parasiten und Synöken des Buchdruckers, *Ips typographus* L. Z. angew. Ent., Berlin **35**: 55–62, 18 figs. [Col.]

1202.—Gaillard, R. Grypocères et Rhopalocères du Gard. Des Hautes Cévennes à la mer. Races et habitat. Rev. franç. Lépid., Paris **13** (1952) : 299–311 ; **14** : 35–39.

1203.—Galindo, P., **Carpenter,** S. J. & **Trapido,** H. The taxonomic status of the *Aëdes leucocelaenus* complex with descriptions of two new forms (Diptera, Culicidae). Ann. ent. Soc. Amer., Columbus **45** (1952) : 529–542, 3 pls.

Gall, D. *see* Kitchen & Gall.

Galun, R. *see* Wolfinsohn & Galun.

1204.—Galvagni, A. Due nuove specie ed una nuova sottospecie del genere *Miramella* Dovnar-Zapolskij (Orthoptera - Catantopidae). Studi trentini, Trento **30** : 20–33, 21 figs.

1205.—Galvagni, E. Schmetterlinge aus dem westlichen Alpengebiet Niederösterreichs : aus Waidhofen an der Ybbs, Ybbsitz, Lunz und dem Ybbstal, dem Minichholz bei Steyr (N.-Ö.) und Umgebung ; aus Türnitz, dem Ötschergebiet, Annaberg und der Walster (Prodromus 1 und 4). Nachträge, Ergänzungen und Erweiterungen zu Dr. med. Carl Schawerdas Lepidopterenfauna des südwestlichen Winkels von Niederösterreich 1913 und 1915 und Franz Saurucks Nachträgen dazu 1927 und 1928. Z. wien. ent. Ges., Vienna **38**: 201–206.

García *see* Cova García.

1206.—Gardiner, P. The morphology and biology of *Ernobius mollis* L. (Coleoptera-Anobiidae). Trans. R. ent. Soc. London **104** : 1–24, 1 pl. 16 figs.

1207.—Gardner, A. E. The life-history of *Leucorrhinia dubia* (van der Lind) (Odonata). Ent. Gaz., London **4** : 45–65, 9 pls.

1208.—Gardner, A. E. The life-history of *Libellula depressa* Linn. (Odonata). Part I. Biological notes. Part II. Life-history. Part III. Final instar nymph. Ent. Gaz., London **4** : 175–201, 39 figs.

1209.—Gardner, A. E. Further notes on exophytic oviposition in Odonata. Ent. mon. Mag., London **89** : 98–99.

Gardner, A. E. *see* Leston & Gardner.

1210.—Gardner, J. C. M. & **Evans,** J. O. Notes on *Oemida gahani* Distant (Cerambycidae). E. Afr. agric. J., Nairobi **18** : 176–183. [Col.]

Gasvoda, J. *see* Tahmisian & Gasvoda.

1211.—Gauckler, K. Die Bergblattkäfergattung *Chrysochloa* in den Landschaften Nordbayerns. NachrBl. bayer. Ent., Munich **2** : 33–36, 1 map. [Col.]

1212.—Gaud, J. Larves d'anophèles à palettes thoraciques hyperchitinisées. Ann. Parasit. hum. comp., Paris **28**: 326–328, 1 fig. [Dipt.]

1213.—Gaud, J. Notes biogéographiques sur les Culicidés du Maroc. Arch. Inst. Pasteur Maroc, Casablanca **4**: 443–490, 16 figs. [Dipt.]

1214.—Gaud, J. & Dupuy, R. Chromotropisme et phototropisme chez *Culex pipiens*. Bull. Inst. Hyg. Maroc, Rabat (N.S.) **11** 1951: 325–326, 1 fig. [Dipt.]

1215.—Gaud, J. & Laurent, J. Observations sur les Phlébotomes de la région de Rabat. Bull. Inst. Hyg. Maroc, Rabat **12** 1952: 73–76. [Dipt.]

1216.—Gaud, J., Laurent, J. & Dupuy, R. Association d'anophèles avec d'autres culicidés dans les mêmes gîtes larvaires au Maroc. Bull. Inst. Hyg. Maroc, Rabat **12** 1952: 77–81. [Dipt.]

1217.—Gaul, A. T. The wonderful world of insects. London, V. Gollancz and Sidgwick & Jackson 222 pp. many pls.

1218.—Gaul, A. T. Additions to Vespine biology. XI: defense flight. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 35–37. [Hym.]

Gaulden, M. E. *see* Carlson, Harrington & Gaulden.

1219.—Gay, F. J. Observations on the biology of *Lyctus brunneus* (Steph.). Aust. J. Zool., Melbourne **1**: 102–110. [Col.]

1220.—Gebhardt, H. Die Lage der wichstigsten Thermorezeptoren bei einigen Insekten. Zool. Jb., Jena (Allg. Zool.) **63**: 558–592, 15 figs.

1221.—Geering, Q. A. Studies of *Lygus vosseleri* Popp. (Heteroptera, Miridae), a pest of cultivated cotton in East and Central Africa. I. A method for breeding continuous supplies in the laboratory. Bull. ent. Res., London **44**: 351–362, 1 pl. 2 figs.

1222.—Geijskes, D. C. Die Plekopteren der deutschen limnologischen Sunda-Expedition, nebst einigen Neubeschreibungen. Arch. Hydrobiol., Stuttgart Suppl. **21** 1952: 275–297, 10 figs.

1223.—Geijskes, D. C. Nuptial flighttime of *Atta*-ants in Surinam. Tijdschr. PlZiekt., Wageningen **59**: 181–184, 2 figs. [Hym.]

1224.—Geissbühler, J. Beobachtungen an Heuschrecken. Mitt. thurg. naturf. Ges., Frauenfeld **33** 1944: 112–131, 6 figs. [Orth.]

1225.—George, C. & Wheeler, J. The ant larvae of the subfamily Ponerinae. Part I. Amer. Midl. Nat., Notre Dame **48**: 111–144, 5 pls., 2 figs. [Hym.]

1226.—[Gerasimov, A. M.] Fn. USSR. Insects: Lepidoptera 1 no. 2. Larvae- Part I. [In Russian.] Zool. Inst. Akad. Nauk SSSR, Moscow (N.S.) **56** 1952: 1–338, 140 figs.

Gere, G. *see* Balogh & Gere.

1227.—Gerhardinger, K. *Diacrisia sannio* L. Z. wien. ent. Ges., Vienna **38**: 289–308, 1 col. pl. [Lep.]

1228.—Gerini, F. Note sui Buprestidi italiani. I, II. Boll. Soc. ent. ital., Genoa **82**: 85–92, 2 figs.; **83**: 45–47. [Col.]

1229.—Gerini, F. Su una interessante forma di *Anthaxia* europea (Col. Buprestidae). Mem. Soc. ent. ital., Genoa **31** 1952: 66.

1230.—Gersch, M. Die Wirkung peripherer Reizung auf die Peristaltik des Mitteldarms und den Verdauungsvorgang bei der Larve von *Chaoborus* (*Corethra*). Verh. dtsch. zool. Ges., Leipzig **1952**: 347–348. [Dipt.]

1231.—Gersch, M. Ueber die Ausscheidung von Farbstoffen bei der Reblaus (III. Beitrag zur Exkretion bei Insekten). Zool. Anz., Leipzig **151**: 225–236, 8 figs. [Hem.]

1232.—Gersdorf, E. Eine bisher unbekannte Form von *Anisodactylus nemorivagus* Dft. (f. *nigripes* f. nov.) aus nordwestdeutschen Hochmooren. Ent. Bl., Krefeld **49**: 115–117, 4 figs. [Col.]

1233.—Gerwel, C. *Solenopotes capillatus dubius* subspec. nov. (Anoplura). Bull. Soc. Amis Sci. Poznań (B) **12**: 153–165, 8 figs.

1234.—Gessner, F. Die Limnologie des Naturschutsgebietes Seeon. Arch. Hydrobiol., Stuttgart **47** : 553–624, 18 figs.

1235.—Ghélélovitch, S. Distribution statistique des tumeurs chez les imagos appartenant à deux souches de Drosophiles avec tumeurs héréditaires. C.R. Acad. Sci., Paris **236** : 2279–2281. [Dipt.]

1236.—Ghélélovitch, S. Influence de la température sur le développement d'une tumeur héréditaire chez la Drosophile (*Drosophila melanogaster* Meig.). C.R. Acad. Sci., Paris **237** : 1445–1447. [Dipt.]

Gibson, C. L. *see* Dalmat & Gibson.

1237.—Gígja, G. Systematic list of Icelandic insects. Reykjavík, Isafoldarprentsmidja H.F. 1945 37 pp. 1 map.

1238.—Gilbert, E. E. The homologies of the male genitalia of Rhynchophora and allied Coleoptera. Ann. ent. Soc. Amer., Columbus **45** (1952) : 633–637, 2 pls.

1239.—Gilbert, E. E. Sexual dimorphism and synonymy in *Anthonomus* (*Anthonomorphus*) (Coleoptera : Curculionidae). Pan-Pacif. Ent., San Francisco **29** : 41.

1240.—Gil Collado, J. Los anofelinos de Fernando Póo. Med. colon., Madrid **21** : 113–125, 17 figs. [Dipt.]

1241.—Giles, E. T. The biology of *Anisolabis littorea* (White) (Dermaptera : Labiduridae). Trans. roy. Soc. N.Z., Dunedin **80** : 383–398, 1 pl.

1242.—Gillogly, G. M. & L. R. *Trichogramma minutum* in monarch butterfly eggs (Hymenoptera : Trichogrammatidae ; Lepidoptera : Danaidae). Pan-Pacif. Ent., San Francisco **29** : 111–120, 1 fig.

1243.—Gilmour, D. Localization of the magnesium-activated apyrase of insect muscle in the sarcosomes. Aust. J. biol. Sci., Melbourne **6** : 586–590. [Dipt.]

1244.—Gilmour, E. F. Descriptions and notes on Lamiinae (Col., Cerambycidae). Ent. Bl., Krefeld **49** : 1, 2 figs.

1245.—Gilmour, E. F. Taxonomic notes on the Cerambycidae (Coleoptera). Tijdschr. Ent., Amsterdam **96** : 51–52.

1246.—[Gilyarov, M. S.] Soil fauna of the ravine forests and its importance for the diagnosis of the soil. [In Russian.] Zool. Zhurn., Moscow **32** : 328–347, 2 figs.

1247.—[Gilyarov, M. S.] On the erroneous use of the illustration of the larva of *Melanotus brunnipes* Germ. in foreign entomological literature. [In Russian.] Zool. Zhurn., Moscow **32** : 552–553. [Col.]

1248.—[Gilyarov, M. S. & **Kurcheva,** G. F.] Larvae of the click beetle *Synaptus filiformis* F. and the position of this genus in the tribe Agriotini. [In Russian.] Zool. Zhurn., Moscow **32** : 1156–1161, 2 figs. [Col.]

1249.—Giordani Soika, A. Risultati della spedizione scientifica zoologica in Turchia del Museo nazionale di Praha. 9. Hymenoptera II. Vespidae : Eumeninae. Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 394 : 375–386, 4 figs.

1250.—Giordani Soika, A. Hyménoptères récoltés par une mission suisse au Maroc (1947). Eumeninae. Bull. Soc. Sci. nat. Maroc, Rabat **32** : 235–267, 4 figs.

1251.—Giordani Soika, A. Vespidi transadriatici. Mem. Biogeogr. adriat., Venice **2** : 33–42. [Hym.]

1252.—Giovannoni, M. & **Mello Malheiro,** D. de. Incidência de parasitas em *Columba livia domestica*. Rev. Fac. Med. vet., São Paulo **4** 1952 : 596–598.

1253.—Gisin, H. Collembola from Jan Mayen Island. Ann. Mag. nat. Hist., London (12) **6** : 228–234, 1 fig.

1254.—Gisin, H. Notes sur les Collemboles, avec description de cinq espèces nouvelles, découvertes dans le canton de Genève. Mitt. schweiz. ent. Ges., Berne **26** : 56–62, 3 figs.

1255.—Giunchi, P. Contributi alla conoscenza dell'entomofauna dell' erba medica. I. Boll. Ist. ent. Univ. Bologna **19** 1952 : 1–30, 13 figs.

1256.—Given, B. B. Record of Planidium larvae from Kiandra, N.S.W. Aust. J. Sci., Sydney **15** 1952 : 65–66, 1 fig. [Hym.]

1257.—Given, B. B. Notes on Melolonthinae (Coleoptera) 1 (including description of a new species). N.Z. Ent., Wellington **1** no. 3 : 18–20, 12 figs.

Given, B. B. *see* Parrott.

1258.—Glaçon, S. Sur le cycle évolutif d'un Coléoptère troglobie *Speonomus longicornis* Saulcy. C.R. Acad. Sci., Paris **236** : 2443–2445.

Glasser, R. F. *see* Pielou & Glasser.

Gloor, H. *see* Wunderly & Gloor.

1259.—Głowacki, J. Contribution to the knowledge of Hymenoptera from the environs of Warsaw. [In Polish with English summary.] Fragm. faun. Mus. zool. polon., Warsaw **6** : 501–523.

1260.—Głowacki, J. Contributions to the knowledge of Polish Ichneumon flies from the subfamily Ophioninae (Hymenoptera, Ichneumonidae). [In Polish with English summary.] Fragm. faun. Mus. zool. polon., Warsaw **6** : 569–584.

1261.—Gluecksohn - Waelsch, S. Lethal factors in development. Quart. Rev. Biol., Baltimore **28** : 115–135. [Dipt.]

Glynne Jones, G. D. *see* Connell & Glynne Jones.

1262.—Goetghebuer, M. Note à propos de 2 *Culicoides* (Diptères) de Belgique. Arch. Hydrobiol., Stuttgart **48** : 126–128, 2 figs.

1263.—Goetghebuer, M. Catalogue des Orthoptères observés en Belgique. Bull. Ann. Soc. ent. Belg., Brussels **89** : 135–145.

1264.—Goetghebuer, M. Contribution au catalogue des Cératopogonides et des Chironomides de Belgique. Bull. Inst. Sci. nat. Belg., Brussels **28** 1952 no. 62 : 1–4, 2 figs. [Dipt.]

1265.—Goetsch, W. Beschleunigung der Entwicklungsgeschwindigkeit von *Drosophila* um 20 bis 30%. Naturwissenschaften, Berlin **40** : 584–585. [Dipt.]

1266.—Goetsch, W. Beitraege zur Biologie der sozialen Insekten in Spanien. Eos, Madrid **29** : 235–280, 7 figs.

Gogel, R. H. *see* Sudia & Gogel.

1267.—Golbach, R. Notas sobre algunos insectos teratológicos. Acta zool. lilloana, Tucuman **10** 1952 : 189–196, 2 pls., 2 figs.

Golbach, R. *see* Kusnezov & Golbach.

1268.—Goldschmidt, R. B. Heredity within a sex-controlled structure of *Drosophila*. J. exp. Zool., Philadelphia **122** : 53–95, 4 figs. [Dipt.]

1269.—Goldschmidt, R. B. Experiments with a homoeotic mutant, bearing on evolution. J. exp. Zool., Philadelphia **123** : 79–114, 3 figs.

1270.—Goljan, A. Studies on Polish beetles of the *Onthophagus ovatus* (L.) group with some biological observations on coprophagans (Coleoptera, Scarabaeidae). Ann. Mus. zool. polon., Warsaw **15** : 55–81, 4 pls.

1271.—Gomes, J. G. Nota a sistemática de *Proacrias coffeae* Ihering, 1913 (Chalcidoidea-Entedontidae), parásito de *Leucoptera coffeella*. Bol. Soc. brasil. Agron., Rio de Janeiro **6** 1943 : 211–214, 4 figs. [Hym.]

1272.—Gomes, J. G. Um novo Euritomideo de galhas em orquídea (Hymenoptera–Chalcidoidea). Bol. Soc. brasil. Agron., Rio de Janeiro **6** 1943 : 244–246, 3 figs.

1273.—Gonçalves, P. C. Sôbre a presença de *Bercaea haemorrhoidalis* (Fallen, 1816) no Rio de Janeiro (Diptera, Sarcophagidae). Rev. brasil. Biol., Rio de Janeiro **13** : 359–362, 8 figs.

González, M. D. P. *see* Edwards & González.

1274.—Good, M. E., **Morrison,** F. O. & **Mankiewicz,** E. Lipidolytic enzymes extracted from *Galleria mellonella* L. (Lepidoptera : Pyralidae) reared on natural and artificial media. Canad. Ent., Ottawa **85** : 252–253.

1275.—Goodman, A. A predator on *Creontiades pallidus*, Ramb. Nature, London **171**: 886. [Neur., Hem.]

1276.—Görtler, A. Contribution à la faune des Orthoptères de Silesie. [In Czech and French.] Acta. Mus. Siles., Opava (A) **1** 1951: 23–25.

1277.—Goss, R. J. The advanced embryology of the book louse, *Liposcelis divergens* Badonnel (Psocoptera; Liposcelidae). J. Morph., Philadelphia **92**: 157–191, 7 pls.

1278.—Gösswald, K. Histologische Untersuchungen an der arbeiterlosen Ameise *Teleutomyrmex schneideri* Kutter (Hym. Formicidae). Mitt. schweiz. ent. Ges., Basle **26**: 81–128, 26 figs.

1279.—Gösswald, K. & **Bier,** K. Untersuchungen zur Kastendetermination in der Gattung *Formica*. Naturwissenschaften, Berlin **40**: 38–39. [Hym.]

1280.—Gösswald, K. & **Bier,** K. Untersuchungen zur Kastendetermination in der Gattung *Formica*. 2. Die Aufzucht von Geschlechtstieren bei *Formica rufa pratensis* (Retz.). Zool. Anz., Leipzig **151**: 126–134. [Hym.]

1281.—Goto, H. E. A species of Collembola, *Sinella coeca* (Schött) (Entomobryidae), new to South Africa. Ent. mon. Mag., London **89**: 165–166, 2 figs.

1282.—Goto, H. E. Notes on the Collembola of the British Isles. J. Soc. Brit. Ent., Bournemouth **4**: 177–182, 4 figs.

1283.—Goto, H. E. & **Delamare-Deboutteville,** C. *Anurida bisetosa* Bagnall a synonym of *A. maritima* (Guérin) (Collemb., Hypogastruridae). Ent. mon. Mag., London **89**: 249–250, 1 fig.

Gottlieb, M. I. *see* Munson & Gottlieb.

1284.—Goulliart, M. Théorie du cône cristallin dans la vision en mosaïque chez l'insecte. C.R. Acad. Sci., Paris **236**: 1508–1510.

1285.—Gourlay, E. S. The Strepsiptera, an insect order new to New Zealand. N.Z. Ent., Wellington **1** no. 3: 3–8, 3 figs. [Col.]

1286.—Goustard, M. Réaction cinétique et bipolarité chez *Blattella germanica*. C.R. Acad. Sci., Paris **236**: 127–129. [Orth.]

1287.—Gouvernel - Guillemain, J. Sur l'identification de la substance de croissance provoquant les tumeurs des chênes attaqués par *Agrilus biguttatus* Fab. (Coleopt.: Buprestidae). C.R. Acad. Sci., Paris **236**: 978–979.

1288.—Goux, L. Notes sur les Coccides (Hem. Coccoidea) de la France (42me note). Etude d'un *Heliococcus* nouveau. Bull. mens. Soc. linn. Lyon **22**: 104–109, 17 figs.

1289.—Goux, L. Contribution à l'étude des métamorphoses d'une Coccinelle, *Scymnus punctillum* Weise (Col. Coccinellidae), prédatrice des tétranyques (Acar.). Rev. Path. vég., Paris **32**: 3–13, 2 pls.

Govil, M. L. *see* Venkatraman & Govil.

1290.—Gozmány, L. A. New data to the Microlepidoptera fauna of the Retyezát Range. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4**: 181–185.

1291.—[Gradoyevit', Z.] Ecologie et développement de *Phytodecta fornicata* Brüggm. (Col. Chrysomelidae). [In Serbian with French summary.] Trav. Acad. serbe Sci., Belgrade **31** Inst. Ecol. Biogeogr. no. 4: 1–50, 22 figs.

1292.—Gradwell, M. A. Notes on the taxonomy and biology of *Crataepus marbis* (Walker) (Hym., Eulophidae). Ent. mon. Mag., London **89**: 73–76, 6 figs.

1293.—Graham, P. Identification of stomach contents of some central African insectivorous birds. Ent. mon. Mag., London **89**: 24.

1294.—Grandi, G. Insetti dei fichi senegalesi (46° contributo alla conoscenza degli insetti dei fichi). Boll. Ist. Ent. Univ. Bologna **19** 1952: 31–45, 9 figs. [Hym.]

1295.—Grandi, G. Insetti dei fichi messicani, malesi ed australiani (47° contributo alla conoscenza degli insetti dei fichi). Boll. Ist. Ent. Univ. Bologna **19** 1952: 47–67, 13 figs. [Hym.]

1296.—Grandi, G. Catalogo ragionato delle Agaonine di tutto il mondo descritte fino ad oggi (4ª edizione (48° contributo alla conoscenza degli insetti dei fichi). Boll. Ist. Ent. Univ. Bologna **19** 1952: 69–96. [Hym.]

1297.—Grandi, G. Introduzione allo studio dell'Entomologia. Aggiunte e correzioni (succesive alla pubblicazione dell'opera). Boll. Ist. Ent. Univ. Bologna **19**: 263–306.

1298.—Grandi, M. Contributi allo studio degli Efemeroidei italiani XVII. Ecdyonuridae. Boll. Ist. Ent. Univ. Bologna **19**: 307–385, 45 figs.

1299.—Grandori, L. & **Carè,** E. I corpi faringei (=corpora cardiaca) in *Calliphora erythrocephala* Mg. adulta (nota preliminare). Boll. Zool. agr. Bachic., Milan **19**: 3–10, 1 pl. [Dipt.]

1300.—Grandori, R. & L. & **Domenichini,** G. Contributo alla conoscenza biologica della *Melasoma aenea* L. (Coleopt. Chrysomel.) e dei suoi parassiti. Boll. Zool. agr. Bachic., Milan **18** 1952: 63–80, 3 pls., 1 fig.

1301.—Grassé, P.-P. La régulation sociale chez les Isoptères et les Hyménoptères. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952: 323–331.

1302.—Gravestein, W. H. Faunistische mededelingen over Cicaden I. Ent. Ber., Amsterdam **14**: 280–281, 2 figs. [Hem.]

1303.—Gray, H. E. Strepsiptera and leafhoppers. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 74–75. [Col., Hem.]

1304.—Gray, H. E. Insects observed at sea. J. econ. Ent., Menasha **45** (1952): 1081.

1305.—Gray, P. H. H. A note on the colors of pupae of *Pieris rapae* developed under artificial conditions. Lepid. News, New Haven **7**: 5–6.

1306.—Gray, P. H. H. Correlations between "pupal volume" and wing-radius and weight in butterflies. Lepid. News, New Haven **7**: 47–48.

1307.—Grayson, J. M. Acidity-alkalinity in the alimentary canal of twenty insect species. Virginia J. Sci., Richmond **2** 1951: 46–59.

Grayson, J. M. *see* Cochran, Grayson & Levitan.

1308.—Green, G. W. & **Henson,** W. R. A new type of coprometer for laboratory and field use. Canad. Ent., Ottawa **85**: 227–230, 4 figs.

1309.—Green, J. Records of peritrichs (Protozoa, Ciliata) on aquatic insects. Ent. mon. Mag., London **89**: 107.

1310.—Green, J. Incomplete arthrogenesis in Coleopteran antennae. Ent. mon. Mag., London **89**: 127–128, 3 figs.

1311.—Green, J. Observations on *Hypogastrura viatica* sensu Stach, 1949, and other Collembola in Carmarthenshire. Ent. mon. Mag., London **89**: 289–291, 1 fig.

1312.—Green, J. W. The Lycidae of the United States and Canada. V. *Plateros* (Coleoptera). Trans. Amer. ent. Soc., Philadelphia **78**: 149–181.

1313.—Green, M. M. The beadex locus in *Drosophila melanogaster* in the nature of the mutants Bx^r and Bx^r. Genetics, Lancaster, Pa. **38**: 91–105, 5 figs. [Dipt.]

1314.—Green, M. M. The beadex locus in *Drosophila melanogaster*: genetic analysis of the mutant Bx^{r49k}. Z. indukt. Abstamm.-u. VererbLehre, Berlin **85**: 435–499, 4 figs. [Dipt.]

1315.—Gregg, R. E. The soldier caste of *Pheidole* (*Ceratopheidole*) *clydei* Gregg (Hymenoptera, Formicidae). Amer. Mus. Novit., New York no. 1637: 1–7, 3 figs.

1316.—Gregg, R. E. Notes on the ant, *Leptothorax obliquicanthus* Cole (Hymenoptera: Formicidae). Breviora, Cambridge, Mass. no. 22: 1–3.

1317.—Gregg, R. E. Morphological considerations affecting the taxonomy of certain genera of ants (Hymenoptera, Formicidae). Proc. ent. Soc. Washington **55**: 324–330, 2 figs.

1319.—Grégoire, C. Blood coagulation in Arthropods. III. Reactions of insect hemolymph to coagulation inhibitors of vertebrate blood. Biol. Bull., Lancaster, Pa. **104** : 372–393, 23 figs.

1320.—Gregor, F. The quercicolous *Lithocolletis* Hb. in ČSR. [In Czech with English summary.] Zool. ent. Listy, Brno **1** 1952 : 24–56, 11 pls. (3 col.) 4 figs. [Lep.]

1321.—Grenier, P. Simuliidae de France et d'Afrique du Nord (systématique, biologie, importance médicale). Encycl. ent., Paris (A) **29** : 1–171, 268 figs. [Dipt.]

1322.—Grenier, P. & Doucet, J. Simulies de Madagascar. Mém. Inst. sci. Madagascar, Tananarive (A) **3** 1949 : 301–323, 16 figs. [Dipt.]

1323.—Grenier, P. & Théodoridès, J. Simulies (Dipt. Simuliidae) du Maroc. Arch. Inst. Pasteur Maroc, Casablanca **4** : 429–441, 3 figs.

1324.—Gressitt, J. L. Supplement to "The Hispine beetles of China" (Coleoptera : Chrysomelidae). Pan-Pacif. Ent., San Francisco **29** : 121–126, 3 figs.

1325.—Gressitt, J. L. Notes on nomenclature and relationships of some Palearctic and Nearctic Lepturinae (Coleoptera : Cerambycidae). Pan-Pacif. Ent., San Francisco **29** : 207.

1326.—Gressitt, J. L. The genus *Glaucytes* in the Pacific (Coleoptera : Cerambycidae). Proc. Hawaii. ent. Soc., Honolulu **15** : 195–199.

1327.—Gridelli, E. Catalogo ragionato delle specie di Coleotteri Tenebrionidi dell'Arabia. Atti Mus. Stor. nat. Trieste **19** : 1–70, 1 pl. 1 fig.

1328.—Griffin, D. R. Sensory physiology and the orientation of animals. Amer. Scient., Lancaster, Pa. **41** : 209–244, 5 figs.

1329.—[Grigor'eva, T. G. & Karpova, A. I.] Food specialization of the Swedish fly *Oscinella pusilla* Meig. under Trans-Volga conditions. [In Russian.] Zool. Zhurn., Moscow **32** : 893–902, 3 figs. [Dipt.]

1330.—Grison, —. & Biliotti, —. Quelques aspects de la biocénose des chenilles processionnaires. Ann. Sci. nat., Paris Zool. (11) **14** (1952) : 423–432. [Lep.]

1331.—Grison, P. & Le Berre, J.-R. Quelques conséquences physiologiques de l'inanition chez l'imago de *Leptinotarsa decemlineata* Say (Col. Chrysomélides). Rev. Path. vég., Paris **32** : 73–86, 7 figs.

1332.—Grison, P. & Ritter, R. Réactions géotactiques et phénomènes sensoriels chez le doryphore (*Leptinotarsa decemlineata* Say). C.R. Soc. Biol., Paris **147** : 626–627. [Col.]

Grison, P. *see* Biliotti, Grison & Silvestre de Sacy.

1333.—Groot, A. P. de. Protein and amino acid requirements of the honeybee (*Apis mellifica*). Physiol. comp., The Hague **3** : 197–285, 16 figs. [Hym.]

1334.—Grosch, D. S. & Sullivan, R. L. The fate of radiophosphorus ingested by *Habrobracon* females. Biol. Bull., Lancaster, Pa. **105** : 296–307, 4 figs. [Hym.]

1335.—Groschke, F. Zur Ueberwinterung und Generationenzahl von *Xyloterus signatus* FBR. (Coleopt., Scolytid.). Z. angew. Ent., Berlin **34** : 461–462.

1336.—Grundmann, A. W. & Butler, J. M. Dipterous larvae infesting the intestinal tract of the coyote, *Canis latrans* Say 1823. J. Kansas ent. Soc., Manhattan **26** : 129–131.

1337.—Grundmann, A. W. & Peterson, B. V. House infesting ants in Salt Lake City, Utah. J. Kansas ent. Soc., Manhattan **26** : 59–60. [Hym.]

1338.—[Grunin, K. Ya.] Larvae of bot-flies of domestic animals of the USSR. [In Russian.] Opred. Faune SSSR, Moscow **51** : 5–124, 139 figs. [Dipt.]

1339.—Guénin, H. A. Les chromosomes sexuels multiples du *Blaps polychresta* Forsk. (Col. Ténébr.). Rev. suisse Zool., Geneva **60** : 462–466, 13 figs.

1340.—Guérin, J. Description de quatre nouvelles espèces de Megalopidae de la "Zoologische Sammlung des Bayerischen Staates" München. Dusenia, Curitiba **3** 1952: 435–442, 4 figs. [Col.]

Guérin, P. *see* Crosson du Cormier, Guérin & de Toulgoët.

Guggisberg, C. A. W. *see* Heisch & Guggisberg.

Guido *see* Silveira Guido.

1341.—Guiglia, D. Ricerche zoologiche sul Massiccio del Pollino (Lucania-Calabria). VIII. Imenotteri. Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 9: 1–28.

1342.—Guiglia, D. L'*Oryssus henschii* Mocs. in Italia (Hymenoptera: Oryssidae). Boll. Soc. ent. ital., Genoa **82** 1952: 18–20, 2 figs.

1343.—Guignot, F. Nouveaux Dytiscides du Parc national de l'Upemba. Diagnoses provisoires (suite). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 18: 1–4, no. 29: 1–3. [Col.]

1344.—Guignot, F. Diagnoses provisoires de Dytiscides africains. Bull. mens. Soc. linn. Lyon **22**: 197–198. [Col.]

1345.—Guignot, F. Trente-neuvième note sur les Hydrocanthares. Rev. franç. Ent., Paris **20**: 109–117, 2 figs. [Col.]

1346.—Guignot, F. Hydrocanthares capturés à la lumière dans le Haut-Katanga. Rev. Zool. Bot. afr., Brussels **47**: 233–237; **48**: 144–148. [Col.]

1347.—Guignot, F. Dytiscides nouveaux de l'Ituri, du Kivu et du Ruanda-Urundi. Rev. Zool. Bot. afr., Brussels **47**: 238–240. [Col.]

1348.—Guignot, F. Description de deux Dytiscides africains. Rev. Zool. Bot. afr., Brussels **48**: 142–143. [Col.]

1349.—Guillemain, A. Découverte et localisation d'un gène empêchant la multiplication du virus de la sensibilité héréditaire au CO_2 chez *Drosophila melanogaster*. C.R. Acad. Sci., Paris **236**: 1085–1086. [Dipt.]

Guillemain, J. Gouvernel - *see* Gouvernel-Guillemain.

1349A.—Guimarães, L. R. Um novo gênero de pulga da família Ischnopsyllidae (Siphonaptera). Pap. Dep. Zool. Sec. Agric. S. Paulo **11**: 109–110.

Guimarães *see* Aguiar Guimarães.

1350.—Gulička, J. Zur Kenntnis der Blepharoceriden der Slowakei. [In Czech with German summary.] Biol. Sborn. Slovensk. Akad., Bratislava **7** 1952 no. 5–6: 83–89. [Dipt.]

1351.—Gulička, J., Jamriška, J. & Korbel, L. Beitrag zur Kenntnis der Bionomie von *Hyphantria cunea* Drury in Südslowakei. I. [In Czech with German summary.] Biol. Sborn. slovensk. Akad., Bratislava **7** 1952 no. 5–6: 101–109, 4 figs. [Lep.]

1352.—Günther, K. Revision der Acrydiinae (Orthoptera), III. Sectio Amorphopi (Metrodorae Bol. 1887, aut.). Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. 1: 16–335, 250 figs.

1353.—Günther, K. Ueber die Verbreitung einiger Insekten im Gebiete des Amazonenstromes und die Frage eines columbischen Faunendistriktes in der brasilianischen Subregion. Arch. Naturgesch., Leipzig (N.F.) **9** 1940: 450–500, 19 figs.

1354.—Günther, K. Ueber die taxonomische Gliederung und die geographische Verbreitung der Insektenordnung der Phasmatodea. Beitr. Ent., Berlin **3**: 541–562, 4 figs.

1355.—Günther, K. Aus der Geschichte der Seide. Dtsch. ent. Z., Iris, Dresden **54** (1940) 1941: 86–91.

1356.—Günther, K. Vermischte Studien über Rüsselkäfer hauptsächlich aus der Sammlung Hartmann, jetzt im Staatl. Museum für Tierkunde, Dresden. Dtsch. ent. Z., Iris Ergänzungsband 1943: 10–96, 26 figs. 4 maps. [Col.]

1357.—Günther, K. Nachträge zur Kenntnis der von Prof. R. Woltereck 1932 auf Celebes und dem Sanghir-Archipel gesammelten Rüsselkäfer. Dtsch. ent. Z., Iris, Dresden Ergänzungsband 1943: 97–118, 15 figs. [Col.]

Gupta, M. L. *see* Nath, Bawa, Bhardwaj & Gupta.

1358.—Gupta S. D. Ecological studies of termites. Part I. Population of the mound-building termite, *Odontotermes obesus* (Rambur) (Isoptera : family Termitidae). Proc. nat. Inst. Sci. India, New Delhi **19** : 697–704.

Gupta *see* Lal Gupta.

1359.—Gurney, A. B. Recent advances in the taxonomy and distribution of *Grylloblatta* (Orthoptera : Grylloblattidae). J. Wash. Acad. Sci. **43** : 325–332, 16 figs.

1360.—Gurney, A. B. Notes on the biology and immature stages of a cricket parasite of the genus *Rhopalosoma*. Proc. U.S. nat. Mus., Washington **103** no. 3313 : 19–34, 1 pl., 6 figs. [Hym., Orthopt.]

1361.—Gurney, A. B. Distribution, general bionomics and recognition characters of two cockroaches recently established in the United States. Proc. U.S. nat. Mus., Washington **103** no. 3315 : 39–56, 1 pl., 8 figs. [Orth.]

1362.—Gurney, A. B. Grasshopper Glacier of Montana and its relation to long-distance flights of grasshoppers. Rep. Smithson. Instn 1952 (Publ. 4121), Washington, D.C. : 305–326, 8 pls. 1 map. [Orth.]

1363.—[Gussakovskii, V. V.] New and little-known species of Psammocharidae and Sphecidae (Hymenoptera) of W. Tadzhikistan. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Moscow **10** 1952 : 199–288, 38 figs.

1364.—[Gutsevich, A. V.] Contribution to the fauna of midges of the genus *Culicoides* of the forest zone (Diptera, Heleidae). [In Russian.] Parazit. Sborn. zool. Inst. Akad. Nauk SSSR, Moscow **14** 1952 : 75–94, 3 figs.

1365.—Györfi, J. Die *Metopius*-Arten (Hym., Ichneumonidae) des Ungarischen Naturwissenschaftlichen Museums. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4** : 161–167.

1366.—Haaf, E. Die afrikanischen Arten der Gattung *Trox* F. (Col. Scarab.). I. Beitrag zur Kenntnis der Subfam. Troginae. Ent. Arb., Munich **4** : 309–346, 28 figs.

1367.—Haaf, E. Ueber die Genitalmorphologie der Zygaenen (Lep.). Veröff. zool. Staatssamml. Münch., Munich **2** 1952 : 125–160, 13 pls. 1 fig. [Lep.]

1368.—Haber, A. Opaślik sosnowiec *Barbitistes constrictus* Br. Watt. (Locustidae Orth.). [In Polish with English summary.] Roczn. Nauk leśn., Warsaw **1** : 71–154, 31 figs., 1 fldg. map. 1 fldg. pl.

1369.—Habu, A. On two Japanese species of the genus *Diplous*. [In Japanese.] Kontyû, Tokyo **19** 1951 : 69–71. [Col.] [Not seen.]

1370.—Habu, A. Descriptions of two new species of Carabidae (Coleoptera). Mushi, Fukuoka **24** 1952 : 35–38, 2 figs.

1371.—Habu, A. On new or unrecorded species of the Carabidae from Japan (Coleoptera). (The Carabidae-fauna of Mt. Hiko, I). Mushi, Fukuoka **25** : 47–51, 2 pls.

1372.—Hachiya, T. The diurnal rhythm of activity in *Drosophila*. [In Japanese with English summary.] Ecol. Rev., Sendai **13** 1952 : 107–110, 1 fig. [Dipt.]

1373.—Hack, W. H. Segunda contribución al estudio de los Tabánidos argentinos (Diptera). An. Inst. Med. reg., Tucuman **3** : 339–347, 10 figs.

1374.—Hackray, J. Remarque sur l'apparition d'*Erebia ligea* L. en Belgique. Lambillionea, Brussels **53** : 22–24. [Lep.]

1375.—Hadorn, E. Beeinflussung der *Drosophila*-Entwicklung durch Mutation und Experiment. Verh. dtsch. zool. Ges., Leipzig **1951** 1952 : 29–42, 5 figs. [Dipt.]

1376.—Hadorn, E. & **Kühn,** E. Chromatographische und fluorometrische Untersuchungen zur biochemischen Polyphänie von Augenfarb-Genen bei *Ephestia kühniella*. Z. Naturf., Tübingen **8b** : 582–589, 4 figs. [Lep.]

1377.—Hadorn, E. & **Stumm-Zollinger,** E. Untersuchungen zur biochemischen Auswirkung der Mutation "letal-translucida" (ltr) von *Drosophila melanogaster*. Rev. suisse Zool., Geneva **60** : 506–516, 2 figs. [Dipt.]

1378.—Hafez, M. Studies on *Tachina larvarum* L. (Diptera, Tachinidae). I–III. Bull. Soc. Fouad ler Ent., Cairo **37**: 255–266, 1 fig., 267–304, 61 figs., 305–335, 11 figs.

1379.—Hafez, M. On the behavior and sensory physiology of the housefly larva, *Musca domestica* L. II. Preputating stage. J. exp. Zool., Philadelphia **124**: 199–225, 11 figs. [Dipt.]

1380.—Hagen, K. S. A premating period in certain species of the genus *Opius* (Hymenoptera: Braconidae). Proc. Hawaii. ent. Soc., Honolulu **15**: 115–116.

Hagen, K. S. *see* Maeda, Hagen & Finney.

1381.—Haget, A. Analyse expérimentale des facteurs de la morphogenèse embryonnaire chez le Coléoptère *Leptinotarsa*. Bull. biol., Paris **87**: 123–217, 4 pls. 44 figs.

1382.—Haget, A. Analyse expérimentale des conditions d'édification d'une gonade embryonnaire chez le Coléoptère *Leptinotarsa*. C.R. Soc. Biol., Paris **147**: 673–675. [Col.]

1383.—Haggett, G. The egg and pupa of *Minucia lunaris* Schiff., and *Colobochyla salicalis* Schiff., (Lep.: Plusiidae). Ent. Gaz., London **4**: 266–268, 4 figs.

1384.—Haggett, G. An original account of rearing *Luceria virens* Linn. Ent. Gaz., London **4**: 314–321, 2 pls. [Lep.]

1385.—Haines, T. W. Breeding media of common flies. I. In urban areas. Amer. J. trop. Med. Hyg., Baltimore **2**: 933–940. [Dipt.]

1386.—Halászfy, C. E. A synopsis of the Heteroptera of Hungary and the neighbouring areas. I. 1. Brachyplatidae; 2. Cydnidae. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4**: 187–195, 8 figs. [Hem.]

1387.—Halcrow, J. G. Preliminary observations on some possible tarsal sensillae of English mosquitoes. Entomologist, London **86**: 104–105. [Dipt.]

1388.—Halcrow, J. G. Predacious mosquito larvae. Nature, London **171**: 1167. [Dipt.]

1389.—Halcrow, J. G. Observations on the anal papillae of *Culex* (*Culex*) *fatigans* Wiedemann. Nature, London **172**: 1156. [Dipt.]

Hale Carpenter *see* Carpenter.

1390.—Hall, D. W. & **Howe,** R. W. A revised key to the larvae of the Ptinidae associated with stored products. Bull. ent. Res., London **44**: 85–96, 92 figs. 1 fldg. table. [Col.]

1391.—Hall, D. W. & **Smith,** I. C. Atypical forms of the wingless worker and the winged female in *Monomorium pharaonis* (L.) (Hymenoptera: Formicidae). Evolution, Lancaster, Pa. **7**: 127–135, 18 figs.

Halperin, A. *see* Bodenheimer, Halperin & Swirski.

1392.—Hama, T., **Maki,** Y. & **Aruga,** H. Pterines in the silkworm and their significance in biochemical genetics (preliminary report). [In Japanese with English summary.] Zool. Mag., Tokyo **58** 1949: 219–222. [Lep.]

1393.—Hamilton, A. G. Thelytokous parthenogenesis for four generations in the desert locust (*Schistocerca gregaria* Forsk.) (Acrididae). Nature, London **172**: 1153–1154. [Orth.]

1394.—Hammad, S. M. The immature stages of *Metophthalmus serripennis* Broun (Coleoptera: Lathridiidae). Proc. R. ent. Soc. London (A) **28**: 133–138, 4 figs.

1395.—Hammen, L. van der. Een weinig bekende methode voor het microscopisch onderzoek van zeer kleine arthropoden. Tijdschr. Ent., Amsterdam **96**: 105–107.

1396.—Hammond, H. E. & **Smith,** K. G. V. On some parasitic Diptera and Hymenoptera bred from Lepidopterous hosts; part I, with a description of *Frontina laeta* Mg. (Dip.: Larvaevoridae). Ent. Gaz., London **4**: 273–279, 1 fig.

1397.—Handschin, E. & **Eglin,** W. Für die Schweiz neue Insektenfunde. Mitt. schweiz. ent. Ges., Basle **26**: 145–146, 1 fig. [Orth., Neur.]

Hanks, G. D. *see* Lefevre, Ratty & Hanks.

1398.—Hannah, A. Non-autonomy of yellow in gynandromorphs of *Drosophila melanogaster*. J. exp. Zool., Philadelphia **123**: 523–559, 2 pls. 2 figs. [Dipt.]

1399.—Hannemann, H. J. Natürliche Gruppierung der europäischen Arten der Gattung *Depressaria* s.l. (Lep. Oecoph.) (begründet auf die Bildung der männlichen Kopulationsorgane und in Beziehung gesetzt zur Verwandtschaft der Wirtspflanzen ihrer Larven). Mitt. zool. Mus. Berlin **29**: 269–372, 21 pls. 1 fig.

Hanser, G. *see* Karlson & Hanser.

1400.—Hanson, B. H. Några mindre beaktade fall av könsdimorfism hos svenska lepidopterer. [With German summary.] Ent. Tidskr., Stockholm **74**: 118–120.

1401.—Hanson, J. F. Studies on the Plecoptera of North America: VI. Further notes on *Isogenoides*. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 76–81, 1 pl.

Hanson, W. J. *see* Knowlton & Hanson.

1402.—Hanström, B. Neurosecretory pathways in the head of crustaceans, insects and vertebrates. Nature, London **171**: 72–73.

Haque, E. *see* Rattan Lal & Haque.

1403.—Harden, P. H. & **Mickel,** C. E. The stoneflies of Minnesota (Plecoptera). Tech. Bull. Minn. agric. Exp. Sta., St. Paul no. 201 1952: 1–84, 12 pls.

1404.—Härdtl, H. Untersuchungen über die Fauna der *Taraxacum*-Arten. Beitr. Ent., Berlin **3**: 69–95.

1405.—Hardy, D. E. Notes on the Shannon types of Dorilaidae from Argentina (Pipunculidae-Diptera). Acta zool. lilloana, Tucuman **10** 1952: 299–306, 12 figs.

1406.—Hardy, D. E. The Argentine Bibionidae (Diptera). Acta zool. lilloana, Tucuman **12** (1951) 1952: 343–376, 14 figs.

1407.—Hardy, D. E. Contribution à l'étude des Diptères de l'Urundi. III.—Bibionidae et Dorilaidae. Bull. Inst. Sci. nat. Belg., Brussels **28** 1952 55: 1–20, 21 figs.

1408.—Hardy, D. E. The Bibionidae of New Zealand (Diptera). Pacif. Sci., Honolulu **7**: 513–521, 7 figs.

1409.—Hardy, D. E. New Hawaiian Tipulidae (Diptera). Proc. Hawaii. ent. Soc., Honolulu **15**: 55–58, 4 figs.

1410.—Hardy, D. E. Studies in Hawaiian Dorilaidae (Diptera) Part I. Proc. Hawaii. ent. Soc., Honolulu **15**: 59–73, 7 figs.

1411.—Hardy, D. E. Studies in oriental Bibionidae: new species of *Plecia* and *Penthetria* and a revision of the *Plecia impostor* complex (Bibionidae: Diptera). Rec. Indian Mus., Delhi **50** (1952): 89–104, 10 figs.

Hardy, F. *see* De Meillon & Hardy.

1412.—Hardy, G. A. Notes on some insects from British Columbia. Rep. Mus. nat. Hist. B.C., Victoria **1952**: B26–B29, 1 pl.

1413.—Hardy, G. H. The phylogeny of Diptera. 2.—Dolichopodidae. Ent. mon. Mag., London **89**: 7–11, 1 fig.

1414.—Hardy, G. H. The evolution of antennae in the Diptera. Ent. mon. Mag., London **89**: 79–90.

1415.—Hare, J. E. Bionomics of *Lipoptena depressa* (Say), the common louse fly of deer in western North America (Diptera: Hippoboscidae). Microentomology, Stanford Univ. **18**: 38–51, 3 figs.

1416.—Harington, J. S. Observations on the biology, the parasites and the taxonomic position of the black maize beetle—*Heteronychus sanctae-helenae* Blanch. S. Afr. J. Sci., Johannesburg **50**: 11–14. [Col.]

1417.—Harker, J. E. An investigation of the distribution of the mayfly fauna of a Lancashire stream. J. Anim. Ecol., London **22**: 1–13, 3 figs. [Ephem.]

1418.—Harker, J. E. The diurnal rhythm of activity of mayfly nymphs. J. exp. Biol., London **30**: 525–533, 6 figs. [Ephem.]

1419.—Harnisch, O. Zur Physiologie der Gasaufnahme durch das geschlossene Tracheensystem. Arch. Hydrobiol., Stuttgart **48**: 431–438. [Dipt.]

1420.—Harnisch, O. Studien zum Gaswechsel der Larve von *Prodiamesa olivacea* Meig. Biol. Zbl., Leipzig **72** : 152–161. [Dipt.]

1421.—Harnisch, O. Bestimmungen der Trockensubstanz bei Larven von *Chironomus thummi* und *Prodiamesa olivacea* in Aerobiose und Anaerobiose. Biol. Zbl., Leipzig **72** : 518–530, 2 figs. [Dipt.]

1422.—Harnisch, O. Gas-Emission im Körper von Tieren. Naturwissenschaften, Berlin **40** : 192–196.

1423.—Harnisch, O. Peroxydbestimmungen an Larven von *Chironomus thummi* in Aerobiose und Anaerobiose. Naturwissenschaften, Berlin **40** : 345. [Dipt.]

1424.—Harnisch, O. Die Rolle der Analpapillen beim Wasserwechsel der Larve von *Chironomus plumosus*. Naturwissenschaften, Berlin **40** : 537–539. [Dipt.]

1425.—Harnisch, O. Beobachtungen über die Schlängelbewegungen der Larven von *Chironomus plumosus* und *thummi*. Zool. Anz., Leipzig **151** : 52–59. [Dipt.]

1426.—Harnisch, O. Untersuchungen zum Gaswechsel der Larve von *Chaoborus crystallinus* Lichtenstein (=*Corethra plumicornis*). Zool. Jb., Jena (Allg. Zool.) **64** : 97–111, 2 figs. [Dipt.]

1427.—Harnisch, O. Die Gasaufnahme der Larve von *Sialis lutaria* L. Zool. Jb., Jena (Allg. Zool.) **64** : 496–514, 1 fig. [Megalopt.]

Harrington, N. G. *see* Carlson, Harrington & Gaulden.

Harris, H. M. *see* Blickenstaff, Arbuthnot & Harris.

1428.—Harris, W. V. A note on termites from St. Helena. Proc. R. ent. Soc. London (A) **28** : 13–14. [Isopt.]

1429.—Harris, W. V. A new termite from the Belgian Congo. Rev. Zool. Bot. afr., Brussels **47** : 261–262, 6 figs. [Isopt.]

1430.—Harris, W. V. Termites and tropical agriculture. Trop. Agriculture (Trin.), London **31** : 11–18. [Isopt.]

1431.—Harrison, B. J. Reversal of a secondary sex character by selection. Heredity, London **7** : 153–164, 6 figs. [Dipt.]

1432.—Harrison, G. Heslop. The probable origin, phylogeny, and evolution of the class Insecta, with special reference to the classification of Hemiptera–Homoptera (Psyllidae). (Abstract.) Proc. Leeds phil. lit. Soc. (Sci. Sect.) **6** 1952 : 54–58.

1433.—Harrison, R. A. Notes on Diptera. N.Z. Ent., Wellington **1** no. 3 : 9–10.

1434.—Harrison, R. A. The Diptera of the Antipodes and the Bounty Islands. Trans. roy. Soc. N.Z., Wellington **81** : 269–282, 15 figs.

Hart, W. G. *see* Dimond & Hart.

1435.—Hartig, F. *Lithocolletis cerrutiella* n. sp. Boll. Ass. romana Ent., Rome **7** 1952 : 17–19, 4 pls. [Lep.]

1436.—Hartig, F. Due nuove specie di *Crambus* (Lep. Pyral.). Boll. Ass. romana Ent., Rome **8** : 14–17, 2 figs.

1437.—Hartig, F. Descrizione di tre nuove specie di Lepidotteri dell' Isola di Zannone. Boll. Soc. ent. ital., Genoa **83** : 67–70, 3 figs.

1438.—Hartig, F. & Amsel, H. G. Lepidoptera sardinica. Fragm. ent., Rome **1** (1951) 1952 : 1–152, 7 pls., 53 figs.

1439.—Hartland-Rowe, R. Feeding mechanism of an Ephemeropteran nymph. Nature, London **172** : 1109–1110, 1 fig.

1440.—Hartwig, E. K. Taxonomic studies of South African Thysanoptera, including genitalia, statistics and a revision of Trybom's types. Ent. Mem. Dep. Agric. S. Afr., Pretoria **2** 1952 : 341–499, 110 figs.

Harwood, R. E. *see* Brennan & Harwood.

Hasegawa, H. *see* Asahina & Hasegawa.

1441.—Haskell, P. T. The stridulation behaviour of the domestic cricket. Brit. J. Anim. Behav., London **1** : 120–121. [Orth.]

1442.—Hassanein, M. H. The influence of infection with *Nosema apis* on the activities and longevity of the worker honeybee. Ann. appl. Biol., London **40** : 418–423. [Hym.]

1443.—Hassanein, M. H. Studies on the effect of pollinating insects, especially the honey-bee, on the seed yield of clover in Egypt. Bull. Soc. Fouad ler Ent., Cairo **37** : 337–344, 4 figs.

1444.—Hassanein, M. H. Studies on the normal and pathological histology of the alimentary canal of the honey-bee, *Apis mellifica* L. (Hymenoptera : Apidae). Bull. Soc. Fouad ler Ent., Cairo **37** : 345–357, 10 figs.

1445.—Hassenstein, B. & **Reichardt,** W. Systemtheoretische Analyse einer Verhaltensweise (der Wechsel-Folgen-Reaktion des Rüsselkäfers *Chlorophanus viridis*). Verh. dtsch. zool. Ges., Leipzig **1952** : 96–102, 4 figs. [Col.]

1446.—Hastings, J. W., **McElroy,** W. D. & **Coulombre,** J. The effect of oxygen upon the immobilization reaction in firefly luminescence. J. cell. comp. Physiol., Philadelphia **42** : 137–150, 5 figs. [Col.]

1447.—Hatch, M. H. The beetles of the Pacific Northwest. Part I : Introduction and Adephaga. Univ. Washington Publ. Biol. **16** : i–vii & 1–340, 38 pls. [Col.]

Hattori, T. *see* Yokoo & Hattori.

1448.—Hauke, H. A. An annotated list of the Orthoptera of Nebraska. Part II. The Tettigidae and Acrididae. Bull. Univ. Nebraska St. Mus., Lincoln **3** no. 9 : 1–79, 1 fig. [Orth.]

1449.—Haupt, H. *Eugereon freygangi* n. sp. Jb. hallesch. mitteldtsch. Erdgesch. **1** 1951 : 182–183, 1 fig. [Fossil.]

1450.—Haupt, H. Insektenfunde aus den Goldlauterer Schichten des Thüringer Waldes. Jb. hallesch. mitteldtsch. Erdgesch. **1** 1952 : 241–258, 1 pl. 18 figs. [Fossil.]

1451.—Haupt, H. Alte und neue *Pepsis*-Arten (Hymenoptera-Sphecoidea) Pompilidae, olim Psammocharidae auct. Mit einem Anhang : Der Stachelapparat der spinnenfangenden Raubwespen. Nova Acta Leop., Halle (N.F.) **15** 1952 no. 109 : 311–414, 50 figs.

1452.—Havelka, J. & **Dvoràk,** R. Sur la variabilité de quelques espèces du genre *Anthophagus* Gravh. avec des descriptions des formes nouvelles (Col., Staphyl.). Bull. Soc. ent. Mulhouse **1953** : 17–19, 25–28, 3 pls.

1453.—Havelka, J. & **Niedl,** J. Bemerkungen zur Bionomie des Bockkäfers *Nothorhina punctata* F. [In Czech with German summary.] Zool. ent. Listy, Brno **2** : 213–219. [Col.]

1454.—Havelka, J. & **Winkler,** J. Hysterotely in *Graphoderes bilineatus* Degeer (Coleoptera). Tijdschr. Ent., Amsterdam **96** : 53–56, 1 pl.

1455.—Havelka, J. & **Winkler,** J. The destructive flour beetle *Tribolium destructor* Uyttenb. [In Czech with English summary.] Zool. ent. Listy, Brno **1** 1952 : 230–237, 1 pl. [Col.]

1456.—Hayes, R. O. Studies on the artificial insemination of the mosquito *Aedes aegypti* (Linnaeus). Mosquito News, Albany, N.Y. **13** : 145–152, 3 figs. [Dipt.]

1457.—Hayward, K. J. Más notas sobre Ninfálidos argentinos. Acta zool. lilloana, Tucuman **10** 1952 : 285–290. [Lep.]

1458.—Hayward, K. J. Una clave para las subfamilias, géneros y especies argentinos de la familia Heliconiidae (Lep. Rhop.). Acta zool. lilloana, Tucuman **10** 1952 : 311–313.

1459.—Hayward, K. J. Clave para los géneros y especies argentinos de la familia Nymphalidae. Acta zool. lilloana, Tucuman **10** 1952 : 401–421. [Lep.]

1460.—Hayward, K. J. Guía para la clasificación de las especies y formas argentinas de la familia Papilionidae. Acta zool. lilloana, Tucuman **12** (1951) 1952 : 279–330, 8 pls. [Lep.]

1461.—Hayward, K. J. Migration of butterflies in Argentina during the spring and summer of 1951–52. Proc. R. ent. Soc. London (A) **28** : 63–73. [Lep.]

1462.—Hedeen, R. A. The biology of the mosquito *Aëdes atropalpus* Coquillett. J. Kansas ent. Soc., Manhattan **26** : 1–10. [Dipt.]

1463.—Hedeen, R. A. Ectoparasites occurring on mammals in the vicinity of Fort Hood, Texas. Texas J. Sci., San Marcos **5** : 125–129.

1464.—Heerdt, P. F. van. The variability of the forceps in the male common earwig, *Forficula auricularia* L. (Dermapt.). Ent. Ber., Amsterdam **14** : 383–385.

1465.—Heerdt, P. F. van & **Kramer,** K. U. Observations biocénotiques dans la garrigue près de Banyuls-sur-Mer et dans la région des dunes de l'étang du Canet près de Saint-Cyprien (Pyrénées-orientales). Vie et Milieu, Paris **3** 1952 : 349–369.

1466.—Heerdt, P. F. van & **Mörzer Bruijns,** M. F. Biocoenologisch onderzoek in de zeereep van Terschelling. Levende Nat., Amsterdam **56** : 63–67, 93–100, 4 figs.

Hein, R. E. *see* Mahmoud Zeid, Dahm, Hein & McFarland.

1467.—Heinrich, G. Ichneumoniden der Steiermark (Hym.) (concl.). Bonn. zool. Beitr. **4** : 147–185, 4 figs.

1468.—Heinrich, G. H. Holarctic elements among the Ichneumoninae of Maine. J. Wash. Acad. Sci. **43** : 148–150. [Hym.]

1469.—Heinrich, G. Deutung einiger Typen Strobls und Arten seiner Sammlung (Hymenopt.). Z. wien. ent. Ges., Vienna **38** : 206–211.

1470.—Heinze, K. Beiträge zur Kenntnis der Blattläuse I. Ueber eine seltene Blattlaus von Moos (*Decorosiphon corynothrix* C.B. (Aphidoidea, Aphididae)). Zool. Anz., Leipzig **150** : 59–63, 2 figs. [Hem.]

1471.—Heisch, R. B. & **Guggisberg,** C. A. W. Notes on the sandflies (*Phlebotomus*) of Kenya. Ann. trop. Med. Parasit., Liverpool **47** : 44–50, 1 fig. [Dipt.]

1472.—Helfer, J. R. Two new *Hippomelas* (Coleoptera - Buprestidae). Pan-Pacif. Ent., San Francisco **29** : 34–36.

1473.—Helfer, J. R. A new subspecies of *Trachykele blondeli* (Coleoptera : Buprestidae). Pan-Pacif. Ent., San Francisco **29** : 176–178.

1474.—Hell, J. C. van. A new Anopheline larva in Netherlands New Guinea : *Anopheles* (*Myzomyia*) *cristatus* ? Docum. Med. geogr. trop., Amsterdam **5** : 255–260, 8 figs. [Dipt.]

1475.—Helmers, jr., G. Mededelingen over 1951–1952 betreffende Lepidoptera (Geometridae en Pyralidae). Ent. Ber., Amsterdam **14** : 291–292.

1476.—Helson, G. A. H. Insect pests affecting horticultural crops and plants in New Zealand. Circ. hort. Div. Dep. Agric. N.Z., Wellington no. 2 1952 : 1–32.

1477.—Hemming, F. Ed. Copenhagen decisions on zoological nomenclature. Additions to, and modifications of, the Règles Internationales de la Nomenclature Zoologique approved and adopted by the Fourteenth International Congress of Zoology, Copenhagen, August, 1953. London, Int. Trust zool. Nomen. xxix & 135 pp. 2 pls.

1478.—Hemming, F. Seven problems of zoological nomenclature awaiting decision : an appeal to specialists for advice. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 37–47.

1479.—Henke, K. Die Musterbildung der Versorgungssysteme im Insektenflügel. Biol. Zbl., Leipzig **72** : 1–51, 16 figs.

1480.—Henke, K. Die Hauptformen der Gliederungsvorgänge in der Entwicklung des Insektenflügels. Verh. dtsch. zool. Ges., Leipzig **1951** 1952 : 42–62, 6 figs.

1481.—Henke, K. & **Pohley,** H.-J. Zur rhythmischen Natur des Adersystems im Insektenflügel. Nachr. Akad. Wiss. Göttingen math.-phys. Kl. (IIb) **1953** no. 4 : 23–33, 4 figs. [Lep.]

1482.—Hennig, W. Uebersicht über die europäischen Arten der Gattung *Chiastochaeta* (Diptera : Muscidae). Beitr. Ent., Berlin **3** : 655–668, 27 figs.

1483.—Hennig, W. Die Gattungen *Delia* und *Paregle* in Australien (Diptera: Muscidae). Beitr. Ent., Berlin **3**: 668–671, 4 figs.

1484.—Hennig, W. Kritische Bemerkungen zum phylogenetischen System der Insekten. Beitr. Ent., Berlin **3** Sonderheft: 1–85, 11 figs.

1485.—Henson, H. On the external morphology of the neck and thorax in *Forficula auricularia* L. (Dermaptera). Trans. R. ent. Soc. London **104**: 25–37, 5 figs.

Henson, W. R. *see* Green & Henson.

1486.—Heqvist, K.-J. Två for Sverige nya tillfälligt inkomna skalbaggsaster. Ent. Tidskr., Stockholm **74**: 116–117, 1 fig. [Col.]

Heran, H. *see* Frisch, Heran & Lindauer.

1487.—Herbulot, C. Description de quatre Larentiinae nouveaux du Kenya (Lep. Geometridae). Bull. Soc. ent. Fr., Paris **58**: 9–12.

1488.—Herbulot, C. Sur quelques *Agdistis* marocains récoltés par M. Charles Rungs (Lep. Pterophoridae). Bull. Soc. Sci. nat. Maroc, Rabat **31** (1951): 269–271.

1489.—Hering, E. M. Bohrfliegen von Fukien (Dipt.) II. Bonn. zool. Beitr. **4**: 345–347, 3 figs.

1490.—Hering, E. M. *Agromyza nigrociliata* Hendel als Getreideschädling (Dipt.). Tijdschr. PlZiekt., Wageningen **59**: 188–191, 3 figs.

1491.—Hering, M. Eine neue Gelechiide aus Süd-Mähren. *Metzneria zimmermanni* spec. nov. Dtsch. ent. Z., Iris, Dresden **54** (1940) 1941: 32–35, 3 figs. [Lep.]

1492.—Hering, E. M. Results of the Archbold Expeditions. Fruchtfliegen (Trypetidae) von Neu-Guinea (Dipt.). Treubia, Bogor **21**: 507–524, 10 figs.

1493.—Hering, E. M. & **Ito,** S. Eine neue *Tephritis*-Art aus Japan (Diptera: Trypetidae). Mushi, Fukuoka **25**: 1–3, 2 figs.

1494.—Herron, J. C. Biology of the sweet clover weevil and notes on the biology of the clover root curculio. Ohio J. Sci., Columbus **53**: 105–112. [Col.]

1495.—Herskowitz, I. H. Bibliography on the genetics of *Drosophila*. Part two. Farnham Royal, Bucks Commonw. agric. Bur. [1953] xi & 112 pp. [Dipt.]

1496.—Herskowitz, I. H. The survival and developmental rates of *D. melanogaster* and *D. simulans*. Amer. Nat., Lancaster, Pa. **87**: 113–115. [Dipt.]

1497.—Hertel, R. Zur Artberechtigung von *Neides favosus* Fieb. (Heteroptera: Neididae). Beitr. Ent., Berlin **3**: 372–377, 1 fig.

Hertig, M. *see* Fairchild & Hertig.

1498.—Herting, B. Revision zweier europäischer *Drosophila*-Arten. Beitr. Ent., Berlin **3**: 166–168. [Dipt.]

1499.—Heslop, I. R. P. Indexed check-list of the British Lepidoptera with the English name of each of the 2313 species. 2nd edn. London, Watkins & Doncaster 1947 85 pp.

1500.—Heslop, I. R. P. First and second supplements to the indexed check-list of the British Lepidoptera with the English name of each of the 2,313 species (1947). Ent. Gaz., London **4**: 29–33, 265.

Heslop Harrison *see* Harrison.

1501.—Hesselbarth, G. Zur gelben *Pieris napi*-Form *hibernica* Schmidt. Ent. Z., Frankfurt a. M. **63**: 17–20. [Lep.]

1502.—Hesselbarth, G. Bemerkungen zu der Verbreitung und den geographischen Rassen von *Pieris napi* L. (Pieridae). Z. Lepid., Krefeld **3**: 33–42.

1503.—Heydemann, F. Ueber einige Tagfalterrassen. Ein Beitrag zur Frage der Rassenbildung bei Lepidopteren. Dtsch. ent. Z., Iris, Dresden **55** (1941) 1942: 85–106, 2 pls.

1504.—Heyrovský, L. Les formes nouvelles des Cerambycides palaearctiques. [In Czech with French summary.] Acta Mus. Siles., Opava (A) **1** 1951: 18–22, 6 figs. [Col.]

1505.—Heyrovský, L. Beitrag zur Kenntnis der Cerambyciden-Fauna der Kožuf-Planina und deren Vorgelände (Col., Ceramb.). Ann. Mus. serb. merid., Skoplje **1** 1939: 45–49.

1506.—Hickin, N. E. Larvae of the British Trichoptera—35–40. Proc. R. ent. Soc. London (A) **28**: 36–38, 3 figs., 39–40, 4 figs., 74–76, 8 figs, 111–113, 7 figs., 114–116, 6 figs., 163–168.

1507.—Hicks, E. A. Observations on the insect fauna of birds' nests. J. Kansas ent. Soc., Manhattan **26**: 11–18.

1508.—Higgins, L. G. Butterfly collecting in U.S.A. Entomologist, London **86**: 207–210. [Lep.]

1509.—Hilchey, J. D. Studies on the qualitative requirements of *Blattella germanica* (L.) for amino acids under aseptic conditions. Contr. Boyce Thompson Inst., Yonkers, N.Y. **17**: 203–219. [Orth.]

Hilchey, J. D. *see* Burchfield, Redder, Storrs & Hilchey.

1510.—Hildebrand, C. W. Morphological and ecological observations on the larvae of Therevidae (Diptera). Wasmann J. Biol., San Francisco **10** (1952): 355–357.

1511.—Hill, A. R. Aphids associated with *Rubus* species in Scotland. Ent. mon. Mag., London **89**: 298–303, 1 fig. [Hem.]

1512.—Hille, J. C. van. Note on *Formicomus rufescens* Pér. (Coleoptera: Anthicidae) and revision of the species of *Formicomus* with red prothorax in South Africa. Proc. R. ent. Soc. London (B) **22**: 9–14, 4 figs.

1513.—Hille, J. C. van. The genus *Formicomus* (Coleoptera: Anthicidae) in H. C. Dollman's collection from N. Rhodesia. Proc. R. ent. Soc. London (B) **22**: 147–154, 3 figs.

1514.—Hille Ris Lambers, D. The Aphid fauna of Greenland. Medd. Grønland, Copenhagen **136** 1952: 1–33, 5 pls. 2 figs. 1 map. [Hem.]

1515.—Hille Ris Lambers, D. Contributions to a monograph of the Aphididae of Europe. V. Temminckia, Leiden **9**: 1–176, 6 pls. 10 figs. [Hem.]

1516.—Hincks, W. D. Dermaptera. Explor. Parc nat. Albert, Miss. de Witte (1933–35), Brussels fasc. **79**: 1–8.

1517.—Hincks, W. D. The Passalidae (Ins. Col.) of El Salvador. Senckenbergiana, Frankfurt a. M. **34**: 29–35, 1 fig.

1518.—Hincks, W. D. The male genital armature of some primitive earwigs (Dermaptera, Diplatyinae). Trans. 9th int. Congr. Ent., Amsterdam 1951 **2**: 3–6, 6 figs.

1519.—Hinton, H. E. Some adaptations of insects to environments that are alternately dry and flooded, with some notes on the habits of the Stratiomyidae. Trans. Soc. Brit. Ent., Bournemouth **11**: 209–227, 3 figs. [Dipt.]

1520.—Hinton, T. A quantitative study of folic acid requirements and reversal of aminopterin inhibition in *Drosophila*. Science, New York **116** 1952: 708–710. [Dipt.]

1521.—Hirano, C. & **Umeya,** K. On the relation of the duration of adult life of the azuki bean weevil, *Callosobruchus chinensis* L. and the quantity of the decreasing of fat content in the body. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **9**: 111–114, 2 figs. [Col.]

1522.—Hirashima, Y. Descriptions and records of bees of the genus *Andrenà* from eastern Asia II (Hymenoptera, Andrenidae). Mushi, Fukuoka **24** 1952: 29–33, 1 pl.

1523.—Hirashima, Y. Description of *Andrena yasumatsui* n. sp., with a provisional key to the subgenera of Palaearctic *Andrena* (Hymenoptera, Andrenidae). Mushi, Fukuoka **24** 1952: 59–65, 1 pl.

1524.—Hirashima, Y. The insect fauna of Mt. Ishizuchi and Omogo valley, Iyo, Japan. Four new species of Apoidea (Hymenoptera). Trans. Shikoku ent. Soc. **3**: 132–136, 2 pls.

Hirashima, Y. *see* Yasumatsu & Hirashima.

1525.—Hirata, K. Nesting habits of the butterfly, *Daimio tethys* Ménétriés. [In Japanese.] Ecol. Rev., Sendai **13** 1951: 9–11, 6 figs. [Lep.]

1526.—Hirschler, J. Die Organisation des männlichen Geschlechtszellenverbandes von *Macrothylacia rubi* L. (Lepidoptera) (Ein methodischer Versuch). Zool. Jb., Jena (Anat.) **73** : 229–275, 3 pls. 15 figs.

1527.—Hirschmann, H. Ein tunnelgrabender Käfer und sein ständiger Gast. Mikrokosmos, Stuttgart **42** : 270–273, 4 figs. [Col.]

1528.—Hisamatsu, S. The insect fauna of Mt. Ishizuchi and Omogo valley, Iyo, Japan. The Nitidulidae. Trans. Shikoku ent. Soc. **3** : 139–143. [Col.]

Hisamatsu, S. *see* Edashige & Hisamatsu ; Ishihara, Miyatake, Hisamatsu, Edashige & Sasaki.

Hoberlandt, H. *see* Drake & Hoberlandt.

1529.—Hoberlandt, L. Hemiptera-Heteroptera collected by Mr. J. Houška in Israel. Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 381 : 5–34, 19 figs.

1530.—Hoberlandt, L. Hemiptera-Heteroptera von Shaqlawa in Südkurdistan. Beitr. Ent., Berlin **3** : 377–384, 6 figs.

1531.—Hoberlandt, L. Results of the Armstrong College Expedition to Siwa Oasis (Libyan Desert), 1935, under the leadership of Prof. J. Omer-Cooper. Hemiptera-Heteroptera. Bull. Soc. Fouad ler Ent., Cairo **37** : 359–370, 5 figs.

Hoberlandt, L. *see* Stehlík & Hoberlandt.

Hock, R. J. *see* Scholander, Flagg, Hock & Irving.

1532.—Hocking, B. Plastic embedding of insects—a simplified technique. Canad. Ent., Ottawa **85** : 14-18, 2 figs.

1533.—Hocking, B. Larval nutrition in *Agrotis orthogonia* Morr. (Lepidoptera : Phalaenidae). A new rearing method. Canad. J. agric. Sci., Ottawa **33** : 23–29, 2 figs.

1534.—Hocking, B. Notes on the activities of *Aedes* larvae. Mosquito News, Albany, N.Y. **13** : 77–81, 3 figs. [Dipt.]

1535.—Hocking, B. The intrinsic range and speed of flight of insects. Trans. R. ent. Soc. London **104** : 223–345, 6 pls. 29 figs. [Dipt.]

1536.—Hodges, D. The pollen loads of the honeybee. A guide to their identification by colour and form. London, Bee Res. Ass. 1952 : 51 pp. 34 pls. (4 col.) 7 col. charts, 7 figs. [Hym.]

1537.—Hodgson, E. S. A study of chemoreception in aqueous and gas phases. Biol. Bull., Lancaster, Pa. **105** : 115–127, 3 figs. [Col.]

1538.—Hodgson, E. S. Collection and laboratory maintenance of Dytiscidae (Coleop.). Ent. News, Lancaster, Pa. **64** : 36–37.

1539.—Hoefke, R. Schülerübungen in der Insektenkunde. Der Musik- und Gehörapparat der Laubheuschrecke. Mikrokosmos, Stuttgart **42** : 219–222, 6 figs. [Orth.]

1540.—Hofbauer, R. Experiences with the percutaneus bee-poison therapy in Thailand. Nat. Hist. Bull. Thailand Res. Soc., Bangkok **13** 1942 : 121–126.

Hoffman, R. A. *see* Roth & Hoffman.

1541.—Hoffman, R. L. A second case of a lacebug bite (Hemiptera : Tingidae). Ent. News, Lancaster, Pa. **64** : 176.

1542.—Hoffman, R. L. The occurrence of several scarce assassin bugs in Virginia (Hemiptera, Reduvioidea). Proc. ent. Soc. Wash. **55** : 163–165.

1543.—Hoffmann, A. Contribution á l'étude des espèces françaises du genre *Miarus* Steph. (Col. Curculionidae). Entomologiste, Paris **9** : 51–63, 32 figs.

1544.—Hoffmann, A. Coléoptères phytophages nouveaux ou peu connus, de la faune paléarctique. Rev. franç. Ent., Paris **20** : 186–194.

1545.—Hoffmann, E. Nachschrift zu " Ignaz Schiffermüller ". Z. wien. ent. Ges., Vienna **37** 1952 : 207.

1546.—Hoffmann, E. Richtigstellung von Aberrationsnamen bei unseren heimischen *Parnassius*-Arten. Z. wien. ent. Ges., Vienna **38** : 12–18. [Lep.]

1547.—Hoffmeyer, S. Diverse om storsommerfugle. Flora og Fauna, Copenhagen **59** : 1–16, 5 figs. [Lep.]

1548.—Hofmeier, H. K. Heuschrecken als Pestbringer in der Vorstellung des mittelalterlichen Menschen. Anz. Schädlingsk., Berlin **26**: 152–153, 2 figs.

Höhne, G. *see* Brandt & Höhne.

1549.—Höhne, W. Die Larvensterblichkeit von *Anopheles atroparvus* als Indikator der Entwicklungsbedingungen im Laboratoriumsversuch. Forsch. Fortschr. dtsch. Wiss., Berlin **27** Heft 3: 76–77, 2 figs. [Dipt.]

1549A.—Holik, C. Zur Rassenfrage der *Zyg. ephialtes* L. (contd.). Ent. NachrBl., Vienna **5**: 6–9, 28–31, 41–44. [Lep.]

1550.—Holik, O. Lepidopterologisches aus dem Dovrefjell. Beitr. Ent., Berlin **3**: 427–434.

1551.—Holik, O. Verbreitung und Variation der *Zygaena scabiosae* Schev. südlich des Alpenkammes. Dtsch. ent. Z., Iris, Dresden **57** (1943) 1944: 41–55. [Lep.]

1553.—Holik, O. Die Nahrungspflanzen der Zygaenenraupen und ihr Bedeutung für die Unterteilung der Gattung *Zygaena* Fabr. Ent. Z., Frankfurt a. M. **62**: 153–159, 182–184, 188–191; **63**: 3–6, 14–16, 20–32, 38–40, 55–56, 70–71. [Lep.]

1554.—Holik, O. & **Sheljuzhko,** L. Ueber die Zygaenen-Fauna Osteuropas, Kleinasiens, Irans, Zentralasiens und Sibiriens. Mitt. münch. ent. Ges., Munich **43**: 102–226. [Lep.]

1555.—Hölldobler, K. Gibt es in Deutschland Ameisengäste, die echte Täuscher sind? Naturwissenschaften, Berlin **40**: 34–35.

1556.—Hölldobler, K. Beobachtungen über die Koloniengründung von *Lasius umbratus umbratus* Nyl. Z. angew. Ent., Berlin **34**: 598–606. [Hym.]

1557.—Holoway, C. E. & **Bergold,** G. H. Iron content of an insect virus. Science, New York **117**: 251–252. [Lep.]

Holst, E. von *see* Mittelstaedt & Holst.

1558.—Hölzel, E. Ameisen Kärntens. Carinthia II, Klagenfurt **142** 1952: 89–132, 18 figs. [Hym.]

1559.—Homberg, R. Some unknown plates in Ernst and Engramelle's "Papillons d'Europe peints d'après nature," 1779–1793. J. Soc. Bibl. nat. Hist., London **3**: 28–33.

1560.—Hood, J. D. A new *Eurythrips* from Virginia (Thysanoptera, Phlaeothripidae). Proc. biol. Soc. Washington **65** 1952: 77–80, 2 figs.

1561.—Hood, J. D. A new *Frankliniella* injurious to Banana (Thysanoptera, Thripidae). Proc. biol. Soc. Washington **65** 1952: 137–139, 2 figs.

1562.—Hood, J. D. Brazilian Thysanoptera III. Proc. biol. Soc. Washington **65** 1952: 141–176.

1563.—Hood, J. D. Two species of *Chirothrips* new to Africa (Thysanoptera, Thripidae). Rev. Zool. Bot. afr., Tervuren **47**: 108–119, 6 figs.

Hoogstraal, H. *see* Sanborn & Hoogstraal.

1564.—Hope, J. A. A simple method for sexing the confused flour beetle. Nature, London **171**: 265–266, 2 figs. [Col.]

Hopkins, D. E. *see* Bushland & Hopkins.

1565.—Hopkins, G. H. E. & **Clay,** T. Additions and corrections to the check list of Mallophaga. Ann. Mag. nat. Hist., London (12) **6**: 434–448.

1566.—Hopkins, G. H. E. & **Rothschild,** M. An illustrated catalogue of the Rothschild collection of fleas (Siphonaptera) in the British Museum (Natural History). With keys and short descriptions for the identification of families, genera, species and subspecies. Volume I. Tungidae and Pulicidae. London, Brit. Mus. (Nat. Hist.) xv & 361 pp. 45 pls. 466 figs.

1567.—Hopp, H.-H. Histologische Veränderungen in den Organen der Kleiderlaus (*Pediculus vestimenti* N.) unter der Einwirkung von Insektiziden (chlorierten Kohlenwasserstoffen). Zool. Jb., Jena (Allg. Zool.) **64**: 267–322, 41 figs. [Anopl.]

Hopp, H. *see* Lüdtke & Hopp.

1568.—Hora, S. L. Lac and the lac-insect in the Atharva-Veda. J. Asiat. Soc., Calcutta Letters **18** 1952: 13–15.

1569.—Hori, K. Morphological studies on Muscoid flies of medical importance in Japan. I. Notes on the common house-fly of Japan and adjacent territory. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1950: 59–63. [Dipt.]

1570.—Hori, K. On some flies of medical importance obtained from Korea and adjacent districts. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** 1952: 77–82. [Dipt.]

1571.—Horion, A. Faunistik der mitteleuropäischen Käfer. Band III. Malacodermata, Sternoxia (Elateridae bis Throscidae). Munich, Ent. Arb. Sonderband xviii & 340 pp. [Col.]

1572.—Hornig, H. Die Bedeutung der Drehherzmücke (*Contarinia nasturtii* Kieffer) für den Kohlrübenanbau unter besonderer Berücksichtigung der Verhältnisse in Schleswig-Holstein. Z. angew. Ent., Berlin **35**: 271–318, 12 figs. [Dipt.]

1573.—Horsfall, W. R., **Miles,** R. C. & **Sokatch,** J. T. Eggs of floodwater mosquitoes. 1. Species of *Psorophora* (Diptera: Culicidae). Ann. ent. Soc. Amer., Columbus **45** (1952): 618–624, 2 pls. 1 fig.

1574.—Hottes, F. C. Seasonal variations in *Myzocallis californicus* Baker (Aphididae). Pan-Pacif. Ent., San Francisco **29**: 43–46, 10 figs. [Hem.]

1575.—Hottes, F. C. Aphidological gleanings (Homoptera). Pan-Pacif. Ent., San Francisco **29**: 147–155.

1576.—Hottes, F. C. A new species of *Amphorophora* (Aphididae). Proc. biol. Soc. Washington **65** 1952: 131–133. [Hem.]

1577.—Hottes, F. C. Notes on some species of *Cinara*, with descriptions of two new species from pinon pine (Aphidae). Proc. biol. Soc. Washington **66**: 153–158. [Hem.]

1578.—Hottes, F. C. Descriptions of the sexual forms of some species of *Amphorophora* (Aphididae). Proc. biol. Soc. Washington **66**: 195–198. [Hem.]

1579.—Hottes, F. C. Descriptions of some undescribed forms of Aphidae. Proc. biol. Soc. Washington **66**: 199–202. [Hem.]

1580.—Hottes, F. C. & **Bradley,** G. A. Two new species of *Cinara* (Homoptera: Aphididae) from Ontario. Proc. biol. Soc. Washington **66**: 85–87.

1581.—Hottes, F. C. & **Essig,** E. O. Descriptions of new species of *Cinara* from western United States (Aphidae). Proc. biol. Soc. Washington **66**: 159–172. [Hem.]

1582.—Hottes, F. C. & **Essig,** E. O. Four new species of *Cinara* (Aphidae). Proc. biol. Soc. Washington **66**: 205–210, 3 figs. [Hem.]

Hottes, F. C. *see* Drake & Hottes.

1583.—Hough, J. S. A preliminary note on the effect of high and low temperatures on hatching of the adult agamic form of *Neuroterus quercus-baccarum* L. (Hym., Cynipidae). Entomologist, London **86**: 218–223.

1584.—Houlbert, C. Sur la distribution géographique des *Xyleutes* (Lép. Zeuzeridae) et description de sept espèces nouvelles. In Oberthür, Etudes lép. comp., Rennes **11** bis 1916: 63–120, 25 pls. 26 figs.

1585.—House, V. L. The interaction of mutants affecting venation in *Drosophila melanogaster*, I, II. Genetics, Lancaster, Pa. **38**: 199–215, 1 fig., 309–327, 7 figs. [Dipt.]

1586.—Hovanitz, W. Polymorphism and evolution. Symp. Soc. exp. Biol., Cambridge no. **7**: 238–253, 1 col. pl. 3 figs. [Lep.]

1587.—Howe, R. W. Studies on beetles of the family Ptinidae. VIII. The intrinsic rate of increase of some Ptinid beetles. Ann. appl. Biol., London **40**: 121–133. [Col.]

1588.—Howe, R. W. The rapid determination of the intrinsic rate of increase of an insect population. Ann. appl. Biol., London **40**: 134–151, 6 figs. [Col.]

1589.—Howe, R. W. The effects of temperature and humidity on the length of the life cycle of *Dermestes frischii* Kug. (Col., Dermestidae). Entomologist, London **86**: 109–113, 1 fig.

1590.—Howe, R. W. & Burges, H. D. A note on the resistance of *Tenebrio molitor* L. (Col., Tenebrionidae) to tropical temperatures. Ent. mon. Mag., London **89** : 4–6.

1591.—Howe, R. W. & Burges, H. D. Studies on beetles of the family Ptinidae 10.—The biology of *Mezium affine* Boieldieu. Ent. mon. Mag., London **89** : 217–220, 3 figs. [Col.]

Howe, R. W. *see* Hall & Howe.

1592.—Hoyle, G. Potassium ions and insect nerve muscle. J. exp. Biol., London **30** : 121–135, 6 figs.

1593.—Hoyle, G. 'Slow' and 'fast' nerve fibres in locusts. Nature, London **172** : 165. [Orth.]

Hoyle, G. *see* del Castillo, Hoyle & Machne.

1594.—Hoyt, C. P. Deformed abdominal tergites in *Musca domestica* Linnaeus (Diptera : Muscidae). Pan-Pacif. Ent., San Francisco **29** : 208–210, 1 fig.

1595.—Hsi, Y.-L. The white mottling position effect in *Drosophila melanogaster*. Abstr. Diss. Univ. Cambridge **1950-51** : 14–15. [Dipt.]

Hsu *see* Siang Hsu.

1596.—Hu, S. M. K. Mosquito survey of Guam. Mosquito News, Albany, N.Y. **13** : 123–125. [Dipt.]

1597.—Huard, P. Les Vietnamiens et les insectes (1). Terre et Vie, Paris **100** : 109–113.

1598.—Huard, G. & Corbe, J. M. Etudes biométriques sur les surfaces portantes de *Parnassius apollo* L. Première note. Bull. Soc. zool. Fr., Paris **77** : 356–362, 4 tables. [Lep.]

1599.—Huber, F. Verhaltensstudien am Männchen der Feldgrille (*Gryllus campestris* L.) nach Eingriffen am Zentralnervensystem (Vorläufige Mitteilung). Verh. dtsch. zool. Ges., Leipzig **1952** : 138–149, 6 figs. [Orth.]

1600.—Hubert, A. A. Observations on the continuous rearing of *Culiseta incidens* (Thomson). Mosquito News, Albany, N.Y. **13** : 207–208. [Dipt.]

1601.—Hubert, A. A. The biology of *Paradixa californica* (Diptera : Dixidae). Pan-Pacif. Ent., San Francisco **29** : 181–190, 1 fig.

1602.—Huckett, H. C. Males of the genus *Hylemya* sens. lat. from North America, having dorsal bristles on mid metatarsus, with descriptions of new species, (Muscidae, Diptera) (concl.). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 10–19, 1 pl.

1603.—Huckett, H. C. A new species of the Anthomyiid genus *Hylemya* Rob.-Desv. from Oregon, reared from fir cones (Muscidae, Diptera). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 107–110, 1 pl.

Hudon, N. *see* Perron, Lafrance & Hudon.

1604.—Hughes, G. M. "Giant" fibres in dragonfly nymphs. Nature, London **171** : 87–88, 2 figs. [Odon.]

1605.—Hughes-Schrader, S. The nuclear content of desoxyribonucleic acid and interspecific relationships in the Mantid genus *Liturgousa* (Orthoptera : Mantoidea). Chromosoma, Berlin **5** : 544–554, 2 figs.

1606.—Hughes-Schrader, S. Supplementary notes on the cytotaxonomy of Mantids (Orthoptera : Mantoidea). Chromosoma, Berlin **6** : 79–90, 23 figs.

1607.—Hukusima, S. The effect of microclimate caused by temperature-rising of irrigation water in the rice field upon the feeding activity of the cone-headed grasshopper, *Homorocoryphus jezoensis* (Matsumura et Shiraki). [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951 : 163–170, 4 figs. [Orth.]

1608.—Hukusima, S. On the diurnal activity of the short-winged rice grasshopper, *Oxya japonica* Willemse (Activity fluctuation in insects and environmental conditions, XII). Oyo-Dobuts.-Zasshi, Tokyo **17** : 170–176. [Orth.]

1609.—Hukusima, S. Ecological studies on the peach fruit moth, *Carposina nipponensis* Walsingham. I. On the diurnal rhythm of adult. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **18** : 55–60, 2 figs. [Lep.]

1610.—Hukusima, S. Ecological studies on the peach fruit moth, *Carposina nipponensis* Walsingham (II. The temperature preference of adult). [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8**: 149–151, 3 figs. [Lep.]

Hull, W. B. *see* Knight & Hull.

1611.—Hungerford, H. B. Concerning *Rheumatobates rileyi* Bergroth (Gerridae). Ent. News, Lancaster, Pa. **64**: 91–92. [Hem.]

1612.—Hungerford, H. B. Concerning *Charmatometra bakeri* (Kirkaldy) (Hemiptera: Gerridae). Ent. News, Lancaster, Pa. **64**: 172–175.

1613.—Hungerford, H. B. A new *Agraptocorixa* from New Guinea (Corixidae-Hemiptera). J. Kansas ent. Soc., Manhattan **26**: 38–39, 1 pl.

1614.—Hungerford, H. B. A new *Agraptocorixa* from Australia. J. Kansas ent. Soc., Manhattan **26**: 42–44, 1 pl. [Hem.]

1615.—Hungerford, H. B. Concerning *Mesovelia douglasensis* Hungerford. J. Kansas ent. Soc., Manhattan **26**: 76–77. [Hem.]

1616.—Hurd, jr., P. D. Notes on the Melectine bees of Mexico (Hymenoptera: Anthophoridae). J. Kansas ent. Soc., Manhattan **26**: 35–37.

1617.—Hurpin, B. Reconnaissance des sexes chez les larves de Coléoptères Scarabaeidae. Bull. Soc. ent. Fr., Paris **58**: 104–107, 5 figs.

1618.—Hurpin, B. Relation entre la diapause et l'ovogenèse chez *Melolontha melolontha* L. (Coléopt. Scarabaeidae). C.R. Acad. Sci., Paris **237**: 1789–1791.

1619.—Hüsing, J. O. Untersuchungen über die Einwirkung bestimmter Ersatznahrung auf Körper und Volksentwicklung der Honigbiene (*Apis mellifica*). Wiss. Z. Univ. Halle **2**: 299–329, 34 figs. [Hym.]

1620.—Hüsing, J. O. Beobachtungen über die Lebensdauer von Bienenarbeiterinnen. Wiss. Z. Univ. Halle **2**: 779–785, 1 fig. [Hym.]

1621.—Hussey, R. F. Concerning some North American Coreidae (Hemiptera). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 29–34.

1622.—Hussey, R. F. Two new Neotropical Saicinae (Reduviidae, Hemiptera). Florida Ent., Gainesville **36**: 61–65, 8 figs.

1623.—Hussey, R. F. Two new species of *Sinea* (Hemiptera, Reduviidae). J. Kansas ent. Soc., Manhattan **26**: 61–64.

1624.—Hussey, R. F. Four new Neotropical Reduviidae (Hemiptera). Proc. ent. Soc. Wash. **55**: 196–205, 2 figs.

1625.—Hutcheon, D. E. & **Chivers-Wilson,** V. S. The histaminic and anticoagulant activity of extracts of the black fly (*Simulium vittatum* and *Simulium venustum*). Rev. canad. Biol., Montreal **12**: 77–85, 3 figs. [Dipt.]

1626.—Huttel, W., **Huttel,** N. & **Verdier,** P. A propos de deux *Culicoides* nouveaux du Gabon (Diptera Heleidae). Ann. Parasit. hum. comp., Paris **28**: 98–107, 2 figs.

1627.—Huzián, L. La teigne de la betterave. [In Magyar with French summary.] Ann. Fac. Agron. Univ. Agric. [? Budapest] **1** 1950: 79–116, 2 figs. [Lep.]

Hwang, Chi-Ling *see* Ross & Hwang.

1628.—Hynes, H. B. N. The Plecoptera of some small streams near Silkeborg, Jutland. Ent. Medd., Copenhagen **26**: 489–494, 1 map.

1629.—Hynes, H. B. N. The nymph of *Neoperla spio* (Newman) (Plecoptera: Perlidae). Proc. R. ent. Soc. London (A) **28**: 93–99, 1 fig.

1630.—Iablokoff, A. Kh. Deux Longicornes nouveaux du Maroc (Col. Cerambycidae). Bull. Soc. ent. Fr., Paris **58**: 60–61.

1631.—Illies, J. Beitrag zur Verbreitungsgeschichte der europäischen Plecopteren. Arch. Hydrobiol., Stuttgart **48**: 35–74, 8 figs.

1632.—Illies, J. Die Wasserkäfergesellschaften der Fulda, vorl. Mittlg. Jber. limnol. Flusst. Freudenthal [1] **1949** 1950: 11–16, 2 figs. [Col.]

1633.—Illies, J. Die Ephemeriden, Plecopteren und Trichopteren der Fulda-Expedition 1948. Jber. limnol. Flussst. Freudenthal [2] **1950** [1951] : 14–18.

1634.—Illies, J. Weitere Ephemeropteren, Plecopteren und Trichopteren aus der Fulda. Ber. limnol. Flussst. Freudenthal **3** 1952 : 14–21.

1635.—Illies, J. Die Plecopteren und das Monardsche Prinzip. Ber. limnol. Flussst. Freudenthal **3** 1952 : 53–69, 3 figs.

1636.—Illies, J. Die deutschen Arten der Dryopidengattung *Lathelmis* Rttr. Ent. Bl., Krefeld **49** : 173–184, 11 figs. [Col.]

1637.—Illies, J. *Isoptena serricornis* Pict. (Plecoptera) neu für Schweden. Ent. Tidskr., Stockholm **74** : 86–93, 8 figs.

Illuminati, G. *see* Camposano & Illuminati.

1638.—Inagaki, S. Etudes sur des asymétries de la forme d'une fourmi, *Lasius niger* L. I. La distribution et la corrélation des asymétries qualitatives dans des parties des organes. [In Japanese with French summary.] Zool. Mag., Tokyo **62** : 421–426, 1 fig. [Hym.]

Inashima, M. D. *see* Rockstein & Inashima.

Inoue, H. *see* Fukaya, Chino & Inoue.

1639.—Inouye, M. Monographische Studie über die japanischen Koniferen-Gallenläuse (Adelgidae). Bull. Hokkaido For. exp. Sta., Noporro no. 15 1945 : 1–105, 66 pls. [reissued as Bull. Sapporo Govt. For. exp. Sta. no. 15 : 1–91, 66 pls.] [Hem.]

1640.—Invrea, F. Imenotteri raccolti da L. Ceresa in Sardegna. I. Crisidi, Mirmosidi e Mutillidi. Atti Soc. ital. Sci. nat., Milan **91** 1952 : 220–228.

1641.—Invrea, F. Una nuova *Myrmosa* dell'Algeria (Hymenoptera, Myrmosidae). Boll. Soc. ent. ital., Genoa **82** (1952) : 94.

1642.—Invrea, F. Mutillidi nuovi o notevoli del bacino mediterraneo (Hymenoptera - Mutillidae). III nota. Boll. Soc. ent. ital., Genoa **83** : 9–17, 1 fig.

1643.—Invrea, F. Sulla validità specifica di *Hedychridium moricei* Buyss. (Hymenoptera - Chrysididae). Boll. Soc. ent. ital., Genoa **83** : 76–78.

1644.—Invrea, F. Hyménoptères récoltés par une mission suisse au Maroc (1947). Apterogynidae, Myrmosidae et Mutillidae. Bull. Soc. Sci. nat. Maroc, Rabat **32** (1952) : 269–299.

1645.—Invrea, F. Primo contributo per lo studio dei Mutillidi dell'isola di Sardegna. Boll. Zool. agrar. Bachic., Parma **18** 1952 : 81–86. [Hym.]

1646.—Invrea, F. I Mirmosidi d'Italia (Hymenoptera : Myrmosidae). Mem. Soc. ent. ital., Genoa **31** 1952 : 5–21, 3 figs.

1647.—Invrea, F. Missione biologica Sagan-Omo diretta dal Prof. E. Zavattari. Hymenoptera Chrysididae. Riv. Biol. colon., Rome **12** (1952) : 57–69, 5 figs.

1648.—[Ioff, I. G.] New cases of formation of species in fleas following a change of host. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **89** : 189–192, 1 fig. [Siphonapt.]

Iragorry *see* Briseño Iragorry.

Irving, L. *see* Scholander, Flagg, Hock & Irving.

Irzykiewicz, H. *see* Day & Irzykiewicz.

1649.—Isaka, S. The stages of uric acid appearance in the adipose tissue of the silkworm, *Bombyx mori*. [In Japanese with English summary.] Zool. Mag., Tokyo **61** 1952 : 217–218, 1 fig. [Lep.]

1650.—Ishihara, T. Delphacidae of Oze, Honshu, Japan (Hemiptera). Insecta matsum., Sapporo **18** 1952 : 35–37, 2 figs.

1651.—Ishihara, T. A new species of Delphacidae from Shikoku, Japan (Hemiptera). Mushi, Fukuoka **24** 1952 : 5–6, 1 pl.

1652.—Ishihara, T. A tentative check list of the superfamily Cicadelloidea of Japan (Homoptera). Sci. Reps Matsuyama agric. Coll. no. 11 : 1–72, 17 pls.

1653.—**Ishihara, T.** Some new genera including a new species of Japanese Deltocephalidae (Hemiptera). Trans. Shikoku ent. Soc. **3**: 192–200, 4 pls.

1654.—**Ishihara, T., Miyatake, M., Hisamatsu, S., Edashige, T. & Sasaki, K.** The insect fauna of Mt. Ishizuchi and Omogo valley, Iyo, Japan. Trans. Shikoku ent. Soc. **3** suppl.: 5–137, 8 pls.

1655.—**Ishii, S.** Some problems on the rearing method of rice stem borer by synthetic media under aseptic condition. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** 1952: 93–98, 1 fig. [Lep.]

Ishii, S. *see* Yushima & Ishii.

1656.—**Ishii, T.** Eine neue Gattung und zwei neue Arten von Calliceratidae (Ceraphronidae). Oyo-Dobuts.-Zasshi, Tokyo **16** 1951: 93–95, 4 figs. [Hym.]

1657.—**Ishii, T.** On the biology of *Spathius fuscipennis* Ashmead, a rice stem borer parasite, in the Philippine Islands. Oyo-Dobuts.-Zasshi, Tokyo **18**: 95–102, 12 figs. [Hym.]

1658.—**Ishikura, H.** Short review on the studies on the statistical prediction of the date and number of the rice borer moth appearance. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16**: 32–40. [Lep.]

1659.—**Ishikura, H.** On the attractiveness of 360 black fluorescent light to rice stem and paddy borer moths and other paddy insects. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** 1952: 104–110. [Lep.]

Isitani, H. *see* Yuasa & Isitani.

1660.—**Issekutz, L.** *Thyris fenestrella* Scop. und ihre Unterarten. Folia ent. hung., Budapest (N.S.) **6**: 185–196, 6 figs. [Lep.]

1661.—**Itikawa, N.** Relation between the body segment and the duplicate crescent marking in the silkworm larva. [In Japanese.] Zool. Mag., Tokyo **58** 1949: 145–146, 1 fig. [Lep.]

1662.—**Ito, S.** Neue Trypetiden (Diptera) aus Japan (III). Bull. Naniwa Univ., Osaka (B) **2** 1952: 19–23, 8 figs.

Ito, S. *see* Hering & Ito.

1663.—**Ito, T.** Blood phenoloxidase in *Bombyx mori* I. Effect of inhibitors. Annot. zool. jap., Tokyo **26**: 176–180, 2 figs. [Lep.]

1664.—**Ito, T.** Studies on the integument of the silkworm, *Bombyx mori*. VII. The permeability of the integument to oxygen and carbon dioxide in vivo. Biol. Bull., Lancaster, Pa. **105**: 308–315, 3 figs. [Lep.]

1665.—**Ito, T.** On the structure of the cuticle in the silkworm larva. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951: 132–134, 1 fig. [Lep.]

1666.—**Ito, T.** Refractive index, specific gravity and catalase activity of the body fluid in the ligated silkworm (*Bombyx mori*). [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** 1952: 61–76, 11 figs. [Lep.]

1667.—**Ito, T.** Experiments on oxygen uptake of the body fluid in *Bombyx mori*. Oyo-Dobuts.-Zasshi, Tokyo **18**: 103–110, 2 figs. [Lep.]

1668.—**Itô, Y.** Studies on the population increase and the movements of soy bean Aphid, *Aphis glycines* Matsumura. I. On the two types of population increase. II. On the movements from plant to plant. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8**: 141–148, 5 figs. [Hem.]

1669.—**Ives, J. D.** Tepee technique for collecting cave flies. J. Tenn. Acad. Sci., Nashville **28**: 240–241, 1 fig. [Dipt.]

1670.—**Ives, P. T., Fenton, B. J., Yost, jr., H. T. & Levine, R. P.** The effects of infra-red radiation and dessication on crossingover in *Drosophila melanogaster*. Proc. nat. Acad. Sci., Washington **39**: 1134–1141. [Dipt.]

Ivy, E. E. *see* Reiser & others.

Iwasaki, A. *see* Oda & Iwasaki.

1671.—Iwase, T. Aberrant feeders among Japanese Lycaenid larvae. Lepid. News, New Haven **7** : 45–46.

1672.—Iwata, K. Biology of *Eumenes* in Japan (Hymenoptera : Vespidae). Mushi, Fukuoka **25** : 25–46, 1 pl., 2 figs.

1673.—Iyatomi, K. The effect of hyperparasitism on the population of *Trichogramma japonicum*. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1950 : 17–24. [Hym.]

1674.—Iyengar, R. Un nouveau mode d'alimentation chez la larve d'*Anopheles turkhudi* et les caractères morphologiques particuliers à cette larve. C.R. Acad. Sci., Paris **237** : 1449–1451, 5 figs. [Dipt.]

1675.—Izzard, R. J. Notes on the genera *Oxyrhachis* Germar 1835, *Pedalion* Buckton 1903, *Gongroneura* Jacobi 1910 and *Negus* Jacobi 1910 (Homoptera, Membracidae). Ent. mon. Mag., London **89** : 116–117.

1676.—Jäckh, E. *Catoptria* (*Semasia*) *heringiana* n. sp. (Eucosmidae). Z. Lepid., Krefeld **3** : 43–45, 2 figs.

1677.—Jackson, C. H. N. Seasonal variations in the mean size of tsetse flies. Bull. ent. Res., London **43** : 703–706, 1 fig. [Dipt.]

1678.—Jackson, C. H. N. A mixed population of *Glossina morsitans* and *G. swynnertoni*. J. Anim. Ecol., London **22** : 78–86, 1 fig. [Dipt.]

1679.—Jackson, N. Observations on the feeding habits of a predaceous mosquito larva, *Culex* (*Lutzia*) *tigripes* Grandpré and Charmoy (Diptera). Proc. R. ent. Soc. London (A) **28** : 153–159.

1680.—Jacobs, W. Vergleichende Verhaltensstudien an Feldheuschrecken (Orthoptera, Acrididae) und einigen anderen Insekten. Verh. dtsch. zool. Ges., Leipzig **1952** : 115–138, 8 figs.

1681.—Jacot-Guillarmod, C. Preliminary notes on African Tiphiidae (Hymenoptera). Proc. R. ent. Soc. London (B) **22** : 15–18.

1682.—Jaeger, C. P. & Salzano, F. M. *Drosophila gaucha*, a new species from Brasil. Rev. brasil. Biol., Rio de Janeiro **13** : 205–207, 4 figs. [Dipt.]

1683.—Jahn, E. & Schimitschek, G. Bodenbiologische und bodenkundliche Untersuchungen zur Frage des Waldrückganges im Tannheimertal. Veröff. Mus. Ferdinand. Innsbrück **30** (1950) 1952: 77–116, 2 pls. 2 maps.

1684.—Jakovlev, V. & Krüger, F. Vergleichende Untersuchungen zur Physiologie der Transpiration der Orthopteren. Zool. Jb., Jena (Allg. Zool.) **64** : 391–428, 18 figs.

James, H. St. C. *see* Stevenson & James.

1685.—James, M. T. The Stratiomyidae (Diptera) of Bimini, British West Indies. Amer. Mus. Novit., New York no. 1613 : 1–6.

1686.—James, M. T. The Diptera collected on the Cockerell and Hubbell Expeditions to Honduras : Part II. Asilidae. J. Washington Acad. Sci. **43** : 46–57, 6 figs.

1687.—James, M. T. Notes on the distribution, systematic position and variation of some Calliphorinae, with particular reference to the species of western North America (Diptera, Calliphoridae). Proc. ent. Soc. Wash. **55** : 143–148.

1688.—James, M. T. An objective aid in determining generic limits. Syst. Zool., Washington, D.C. **2** : 136–137, 1 fig.

1688A.—Jameson, jr., E. W. The fleas of Japan and Korea (Siphonaptera). Office of Chief Surgeon, U.S. Army Forces FEC pamphlet 8–2 [3+] 21 pp. 26 pls.

1689.—Jameson, jr., E. W. & Kumada, N. Two new Hystrichopsyllid fleas from Japan (Siphonaptera : Hystrichopsyllidae). J. Parasit., Lancaster, Pa. **39** : 456–461, 4 figs.

Jamriška, J. *see* Gulička, Jamriška & Korbel.

1690.—Jancke, O. Die Wirtspflanzen des Springwurms (*Sparganothis pilleriana*). Anz. Schädlingsk., Berlin **16** 1940 : 136–138, 2 figs. [Lep.]

1691.—Jancke, O. Beiträge zur Kenntnis der Sackträgermotte *Coleophora hemerobiella* Sc. Gartenbauwiss., Berlin **15** 1940 : 362–379, 17 figs. [Lep.]

1692.—Jancke, O. Weiterer Beitrag zur Lebensweise und Bekämpfung des Birnknospenstechers (*Anthonomus pyri* Kollar). Gartenbauwiss., Berlin **17** 1942 : 1–17, 9 figs. [Col.]

1693.—Jancke, O. & **Roesler,** R. Beiträge zur Lebensweise der Traubenwickler (*Polychrosis botrana* Schiff. und *Clysia ambiguella* Hübn.). Wein u. Rebe, Mainz **22** 1940 : 145–169, 8 figs. [Lep.]

1694.—Janda, jr., V. Gesamtstoffwechsel der Insekten. II. Einfluss der Temperatur auf den Sauerstoffverbrauch verschiedener Entwicklungsphasen von *Dixippus morosus* Br. et Redt. [In Czech with German summary.] Acta Soc. zool. bohemoslov., Prague **16** 1952 : 237–248, 14 figs. [Orth.]

Janda, jr., V. *see* Doskočil, Janda & Wenig.

1695.—Janetschek, H. Machilides du Dauphiné (Apterygota, Thysanura). Rev. franç. Ent., Paris **20** : 55–68, 25 figs.

1696.—Janetschek, H. Ueber die deutschen Arten der Gattung *Lepismachilis* (Thysanura, Machilidae). Zool. Anz., Leipzig **150** : 64–66, 1 fig.

1697.—Janetschek, H. Ein neuer Felsenspringer aus dem Atlas (Thysanura, Machilidae). Zool. Anz., Leipzig **150** : 128–133, 8 figs.

1698.—Janetschek, H. Beitrag zur Kenntnis der Felsenspringer (Thysanura, Machilidae) Deutschlands. Zool. Anz., Leipzig **151** : 20–24, 5 figs.

1699.—Jannone, G. Contributi alla conoscènza morfobiologica e sistematica dell' Ortotterofauna dell' Eritrea. VII. Studio sul comportamento della *Schistocerca gregaria* (Forsk.) in Eritrea dal 1939 al 1946 in rapporto ai fattori ambientali e comparazioni col comportamento delle infestioni amofeliche. Boll. lab. Ent. agr. Portici **12** : 189–248, 23 figs.

1700.—Janssens, A. Contribution à l'étude de la zone d'inondation du Niger (mission G. Remaudière, 1950) V. Coléoptères Scarabaeinae. Bull. Inst. franç. Afr. noire, Dakar **15** : 1548–1551.

1701.—Janssens, A. Oniticellini (Coleoptera Lamellicornia). Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. 11 : 1–118, 135 figs.

1702.—Janssens, A. Coleoptera Lamellicornia. Résult. sci. Explor. hydrobiol. Lac Tanganyika (1946–1947), Brussels **3** 1952 fasc. 3 : 27–37.

1703.—Janssens, A. Contribution à l'étude des Coléoptères Lamellicornes d'Afrique. I–III. Rev. Zool. Bot. afr., Tervuren **47** : 65–76, 8 figs., 344–347, 6 figs. ; **48** : 287–291, 10 figs.

1704.—Janssens, E. Une nouvelle espèce de Diptère Asilide d'Afrique centrale : *Laphria maynéi* n. sp. Bull. Ann. Soc. ent. Belg., Brussels **89** : 207–209, 1 fig.

1705.—Janssens, E. Contribution à l'étude des Diptères de l'Urundi. IV.—Asilidae. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 42 : 1–15, 14 figs.

1706.—Janssens, E. Révision des espèces africaines du genre *Ammophilomima* Enderlein (Diptera Asilidae). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 44 : 1–12, 8 figs.

1707.—Janssens, E. Cupesidae, Paussidae. Coleopt. Catal. (Suppl.), 's-Gravenhage pars 5 (2nd ed.) 84 pp.

1708.—Janssens, E. Betrachtungen über die geographische Verbreitung der Paussiden. Naturwissenschaften, Berlin **40** : 39–40. [Col.]

1709.—Jansson, A. *Viennopria* nov. gen. (Hymen., Diapriidae). Ent. Tidskr., Stockholm **74** : 105–107, 1 fig.

1710.—Janzer, W. & **Ludwig,** W. Versuche zur evolutorischen Entstehung der Höhlentiermerkmale. Z. indukt. Abstamm.- u. VererbLehre, Berlin **84** : 462–479, 16 figs. [Dipt.]

1711.—Järnefelt, H. Die Seetypen in bodenfaunistischer Hinsicht. Ann. zool. Soc. zool. bot. Vanamo, Helsinki **15** no. 6 : 1–37.

1712.—Jarrige, J. Deux Aléocharides Xénophiles nouveaux du Katanga (Col. Staphylinidae). Rev. Zool. Bot. afr., Tervuren **47** : 60–64, 3 figs.

1713.—Jarrige, J. *Gabrius* observés dans les Pyrénées-orientales. Vie et Milieu, Paris **3** 1952 : 475–476. [Col.]

1714.—Jarvis, F. V. L. The relationship of *Colias croceus* (Fourcroy) and *Colias electo* (Linn.). Trans. R. ent. Soc. London **104** : 521–542, 1 col. pl. 7 figs. [Lep.]

1715.—Jayewickreme, S. H. Observations on the bionomics of some Anopheline mosquitoes reared in the laboratory. Parts I–III. Ceylon J. Sci., Colombo (B) **25** : 75–116. [Dipt.]

1716.—Jayewickreme, S. H. Nocturnal mating in *Taeniorhynchus* (*Mansonioides*) *uniformis* (Theobald). Nature, London **171** : 577. [Dipt.]

1717.—Jeannel, R. Pselaphides recueillis par N. Leleup au Congo belge. V.—Faune de l'Itombwe-Sud, du Kahuzi, de la Dorsale de Lubero et du Mont Hoyo. Ann. Mus. Congo belg., Tervuren (Sér. 8°) Sci. zool. **20** (1952) : 1–313, 316 figs. [Col.]

1718.—Jeannel, R. Sur quelques Psélaphides de l'Afrique équatoriale française (Col. Pselaphidae). Ann. Soc. ent. France, Paris **122** : 75–83, 8 figs.

1719.—Jeannel, R. Un Clavigérite nouveau de la Guinée française (Col. Pselaphidae). Bull. Soc. ent. France, Paris **58** : 21–23, 6 figs.

1720.—Jeannel, R. Sur quelques Psélaphides de la Guinée française. Rev. franç. Ent., Paris **20** : 1–28, 17 figs. [Col.]

1721.—Jeannel, R. Un *Stomis* cavernicole de l'Aveyron (Coleoptera Pterostichidae). Rev. franç. Ent., Paris **20** : 157–159, 3 figs.

1722.—Jeannel, R. Sur la faune entomologique de l'île Marion. Rev. franç. Ent., Paris **20** : 161–167. [Col.]

1723.—Jeannel, R. Sur un Psélaphide des îles Crozet. Rev. franç. Ent., Paris **20** : 168–173, 6 figs. [Col.]

1724.—Jeannel, R. Origine et répartition des Psélaphides de l'Afrique intertropicale. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 154–156. [Col.]

1725.—Jedlička, A. Les Carabides nouveaux de la zone palaearctique (Col.). Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 389 : 207–211.

1726.—Jedlička, A. Etudes sur les Carabides de la faune palaearctique. Acta Mus. Siles., Opava (A) **1** 1951 : 59–60. [Col.]

1727.—Jedlička, A. Nouveaux Carabides de la collection du Musée Silésien à Opava. Acta Mus. Siles., Opava (A) **2** 1952 : 51–53. [Col.]

1728.—Jedlička, A. Neue palaearktische Carabiden aus der Sammlung des Ungarischen Naturwissenschaftlichen Museums (Coleoptera). Ann. hist.-nat. Mus. hung., Budapest (N.S.) **3** : 105–113.

1729.—Jedlička, A. Ueber jugoslavische Carabiden. Ann. Mus. serb. merid., Skoplje **1** 1939 : 51–53. [Col.]

1730.—Jedlička, A. Neue Carabiden aus der chinesischen Provinz Fukien. Ent. Bl., Krefeld **49** : 141–147. [Col.]

1731.—Jellison, W. L., **Locker,** B. & **Bacon,** R. A synopsis of North American fleas, North of Mexico, and notice of a supplementary index. J. Parasit., Lancaster, Pa. **39** : 610–618. [Siphonapt.]

1732.—Jensen, P. B. Untersuchungen über die Bildung der Galle von *Mikiola fagi*. Biol. Medd., Copenhagen **18** 1952 no. 18 : 1–18, 8 figs. [Dipt.]

Jewett, jr. S. G. *see* Fender & Jewett.

1733.—Jobling, B. On the blood-sucking midge *Culicoides vexans* Stäger, including the description of its eggs and the first-stage larva. Parasitology, London **43** : 148–159, 4 figs. [Dipt.]

1734.—John, H. *Aphanocephalus birói* n. sp. (Col. Notiophygidae). Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4** : 79–80, 1 fig.

1735.—John, H. Eine neue Species von *Notiophygus* Gory (Notiophygidae Col.). Ent. Bl., Krefeld **49** : 32–33, 1 fig.

1736.—John, H. Drei neue Species der Gattung *Cassidoloma* Kolbe (Notiophygidae Col.). Ent. Bl., Krefeld **49**: 110–114, 1 pl.

1737.—Johnson, B. Flight muscle autolysis and reproduction in Aphids. Nature, London **172**: 813. [Hem.]

1738.—Johnson, D. E. & **Maughan,** L. Studies in Great Basin Bombyliidae. Gr. Basin Nat., Provo **13**: 17–27. [Dipt.]

1739.—Jolivet, P. Contribution à l'étude de la zone d'inondation du Niger (mission G. Remaudière, 1950) IV. Coléoptères Chrysomeloidea. Bull. Inst. franç. Afr. noire, Dakar **15**: 1539–1547, 1 fig.

1740.—Jolivet, P. Les Chrysomeloidea (Coleoptera) des Iles Baléares. Mém. Inst. Sci. nat. Belg., Brussels (2) fasc. 50: 1–88, 3 pls. 7 figs.

1741.—Jolivet, P. De la nomenclature du genre *Chlamys* Knoch (Col.). Rev. Zool. Bot. afr., Tervuren **47**: 258–260.

1742.—Jolivet, P. & **Théodoridès,** J. Les parasites, phorétiques et prédateurs des Chrysomeloidea (Coleoptera) (4me note). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 32: 1–15.

1743.—Jolivet, Y. Embioptera. Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. 17: 43–48, 7 figs.

1744.—Jolivet, Y. Lonchodidae (Cheleutoptera). Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. 17: 49–58. [Orth.]

1745.—Jones, B. M. Activity of the incretory centres of *Locustana pardalina* during embryogenesis: function of the prothoracic glands. Nature, London **172**: 551. [Orth.]

1746.—Jones, J. C. On the heart in relation to circulation of hemocytes in insects. Ann. ent. Soc. Amer., Columbus **46**: 366–372, 4 figs.

1747.—Jones, J. C. Some biometrical constants for *Anopheles quadrimaculatus* Say larvae in relation to age within stadia. Mosquito News, Albany, N.Y. **13**: 243–247, 3 figs. [Dipt.]

1748.—Jones, J. C. A chamber for observations on living larvae of Anopheline mosquitoes. Science, New York **177**: 42, 1 fig. [Dipt.]

Jones *see* Glynne Jones.

1749.—Jonet, S. Un insecte oligocène des Carpathes roumaines. Bull. Soc. belge Géol. Pal. Hydr., Brussels **61** 1952: 131–133, 2 figs. [Fossil.]

1750.—Jong, C. de. Coleopterologische notities III, IV. Ent. Ber., Amsterdam **14**: 251–253, 6 figs., 349–351.

1751.—Jong, C. de. Schimmelbestrijding in insectenverzamelingen. Ent. Ber., Amsterdam **14**: 286–287.

1752.—Jong, C. de. Entomologische notities IV. Ent. Ber., Amsterdam **14**: 366–367. [Hym.]

1753.—Jong, C. de. A new Nitidulid beetle from Sumatra. Zool. Meded., Leiden **32**: 43–47, 2 figs. [Fossil. Col.]

1754.—Jonge Poerink, W. H. Studies on the fauna of Curaçao and other Caribbean Islands. Vol. IV: no. 19. Caribbean tiger beetles of the genus *Cicindela*. Natuurwet. Stud. Suriname, The Hague no. 8: 120–143, 5 pls. 4 figs. [Col.]

1755.—Jordan, H. E. K. On a very remarkable flea from Argentina collected by Dr. J. M. de la Barrera. Bull. Brit. Mus. (Nat. Hist.), London Ent. **3**: 179–186, 5 figs. [Siphonapt.]

1756.—Jordan, K. H. C. Zoogeographische Betrachtungen über die aquatilen Rhynchoten Afrikas. Zool. Anz., Leipzig **150**: 112–124. [Hem.]

1757.—Jordan, K. H. C. Eine weitere fossile Notonectide (Hem. Het.) von Rott im Siebengebirge. Zool. Anz., Leipzig **150**: 245–249, 2 figs.

1758.—Jordan, K. H. C. Wachsdrüsen bei *Odontoscelis*, sowie ein Beitrag zur Biologie dieser Gattung (Hem. Het. Pentatomidae). Zool. Anz., Leipzig **151**: 186–192, 7 figs.

1759.—Jørgensen, J. Biology of the alfalfa snout beetle (*Otiorrhynchus ligustici* L.) in Denmark. K. VetHøjsk. Aarsskr., Copenhagen **1953**: 105–146, 21 figs. [Col.]

1760.—Joseph, K. J. Contributions to our knowledge of fig insects (Chalcidoidea: parasitic Hymenoptera) from India. III, IV. Agra Univ. J. Res. (Sci.) **2**: 53–81, 86 figs., 267–283, 5 figs.

1761.—Joseph, K. J. Contributions to our knowledge of fig insects (Chalcidoidea: parasitic Hymenoptera) from India. I. Agaontidae from *Ficus glomerata* Roxb. Indian J. Ent., New Delhi **15**: 127–137, 46 figs.

1762.—Joseph, T. On the biology, bionomics, seasonal incidence and control of *Piezodorus rubrofasciatus* Fabr., a pest of linseed and lucerne at Delhi. Indian J. Ent., New Delhi **15**: 33–37, 10 figs. [Hem.]

Joseph, T. *see* Samuel & Joseph.

1763.—Jovancic, L. Genèse des pigments tégumentaires de la mante religieuse et d'autres animaux. Leur rôle biologique et physiologique. Bull. biol., Paris **87**: 92–104. [Orth.]

1764.—Jovanić, M. Contribution to the knowledge of the biology of *Euxoa temera* Hb. in the Voyvodina and the experiments for its control. [In Croat with English summary.] Pl. Prot., Belgrade **20**: 47–70; 8 pls. 1 map. [Lep.]

1765.—Judd, W. W. A study of the population of insects emerging as adults from the Dundas Marsh, Hamilton, Ontario, during 1948. Amer. Midl. Nat., Notre Dame **49**: 801–824, 10 figs.

1766.—Judd, W. W. Insects reared from goldenrod galls caused by *Eurosta solidaginis* Fitch (Diptera: Trypetidae) in southern Ontario. Canad. Ent., Ottawa **85**: 294–296.

1767.—Judd, W. W. Mammal host records of Acarina and Insecta from the vicinity of London, Ontario. J. Mammal., Baltimore **34**: 137–139.

1768.—Judd, W. W. Diptera and Hymenoptera reared from pine cone willow galls caused by *Rhabdophaga strobiloides* (Diptera: Itonididae). Rep. Ontario ent. Soc., Toronto **83** 1952 [1953]: 34–42, 6 figs.

1769.—Judd, W. W. A collection of feather lice (Mallophaga) from birds in Ontario. Trans. Amer. micr. Soc., Columbus, Ohio **72**: 349–350.

1770.—Judge, P. J. A new method for determining the transition temperature of insect cuticular waxes. Nature, London **172**: 405–406.

1771.—Junco y Reyes, J. J. del. Nota himenopterológica III.—*Lepidocnemis antiquus* Hpt. (Hym. Psam.). Eos, Madrid **29**: 283–287, 1 fig.

1772.—Jupe, H. Das Massenauftreten von *Thaumetopoea processionea* l (Eichenprozessionsspinner) in der Altmark. Ent. Z., Frankfurt a. M. **62**: 178–180. [Lep.]

1773.—Juutinen, P. Zwei metatelische *Tetropium*-Larven (Col., Cerambycidae). Ann. ent. fenn., Helsinki **19**: 104–106, 1 fig.

1774.—Kabos, W. J. Dipterologisch onderzoek van een blauwgrasland. Ent. Ber., Amsterdam **14**: 313–315.

1775.—Kaburaki, T. On the phototropism of insects. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1950: 1–7.

Kadochnikov, N. P. *see* Mal'chevskii & Kadochnikov.

1776.—Käfer, E. Vitalitätsmutationen, ausgelöst durch Röntgenstrahlen bei *Drosophila melanogaster*. Z. indukt. Abstamm.-u. Vererb-Lehre, Berlin **84**: 508–535, 10 figs. [Dipt.]

Kahn, N. H. *see* Khan.

1778.—Kaiser, P. *Anoplotermes pacificus*, eine mit Pflanzenwurzeln vergesellschaftet lebende Termite. Mitt. hamburg. zool. Mus. **52**: 77–92, 16 figs. [Isopt.]

1779.—Kaji, S. & **Ogaki,** M. Induction of phenocopy by nitrogen mustard in *Drosophila melanogaster*. [In Japanese with English summary.] Zool. Mag., Tokyo **60** 1951: 254–257, 3 figs. [Dipt.]

1780.—Kaji, S. & **Ogaki,** M. The sensitive period of bar-eye discs in *Drosophila melanogaster*. [In Japanese with English summary.] Zool. Mag., Tokyo **62**: 432–436, 1 fig. [Dipt.]

Kaji, S. *see* Ogaki, Kaji & Tanaka.

Kałkowski, W. *see* Wojtusiak, Kałkowski, Medwecka-Kornaś & Kornaś.

1781.—Kamioka, S. Oxygen consumption of the epithelium in the mid-gut of the silkworm larva. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1950: 64–69. [Lep.]

1782.—Kamioka, S. Amount of the oxygen consumption of epithelium in mid-gut of silkworm larva deprived of the frontal ganglion. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** : 155–160. [Lep.]

1783.—Kamioka, S. Morphology of the alimentary canal in the silkworm larva deprived of the frontal ganglion. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** : 177–180, 1 fig. [Lep.]

1784.—Kamioka, S. Life-cycle of the hemp weevil, with reference to its control. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **9** : 17–22, 2 figs. [Col.]

1784A.—Kamp, H. J. Einiges über das Auftreten von *Hylesinus fraxini* Panz. (Scolytidae) in Württemberg. Ent. Bl., Krefeld **49** : 18–19. [Col.]

1785.—Kamp, J. W. New locality and habitat record for *Grylloblatta* (Insecta, Grylloblattodea). Bull. S. Calif. Acad. Sci., Los Angeles **52** : 61–63. [Orth.]

1786.—Kanda, S. A new species of genus *Phenacaspis* (Homoptera) from Corea. Zool. Mag., Tokyo **53** 1941 : 220–221, 2 figs.

1787.—Kanellis, A. Anlagenplan und Regulationserscheinungen in der Keimanlage des Eies von *Gryllus domesticus*. Arch. EntwMech. Org., Leipzig **145** 1952 : 417–461, 13 figs. [Orth.]

1788.—Kangas, E. On population regulation of forest insects living in tree rind in Finland. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 224–228, 2 figs.

1789.—Kangas, Y. Ueber das finnische Vorkommen des auffallenden Einwandererkäfers *Lithocharis nigriceps* Kr. (Col., Staphylinidae). Ann. ent. fenn., Helsinki **19** : 71–83, 4 figs. 6 maps.

1790.—Kangas, Y. Drei bemerkenswerte Käferfunde aus Mittelfinnland. Ann. ent. fenn., Helsinki **19** : 124–129, 2 figs. [Col.]

1791.—Kano, R. Notes on the flies of medical importance in Japan. Part VII. Eggs and larvae of Stomoxydinae in Japan. Jap. J. exp. Med., Tokyo **23** : 187–195, 2 pls. [Dipt.]

1792.—[Kantardzhieva - Minkova, S.] Der Artbestand und die Verbreitung der Maikäfer (Melolonthinae Coleopt.) in Bulgarien. [In Bulgarian with German summary.] Bull. Inst. zool. Acad. bulg. Sci., Sophia **2** : 275–312, 3 pls. 8 figs.

1793.—Kaplan, W. D. & **Lyon,** M. F. Failure of mercaptoethylamine to protect against the mutagenic effects of radiation I : Experiments with *Drosophila*. Science, Lancaster, Pa. **118** : 776–777. [Dipt.]

1795.—Kappel, I. Die Form des Safthalters als Anreiz für die Sammeltätigkeit der Bienen. Z. vergl. Physiol., Berlin **34** : 539–546, 4 figs. [Hym.]

1796.—Kapuściński, S. A new habitat of *Tachycines asynamorus* Adel. (Orthoptera, Locustidae) on the Polish territory. [In Polish with English summary.] Bull. ent. Pologne, Wrocław **20** (1950) 1951 : 100–101.

1797.—Karabag, T. Some new Orthoptera from Turkey. Eos, Madrid **29** : 177–200, 78 figs.

1798.—[Karaman, Z.] Ueber neue Coleopteren aus Jugoslavien, insbesonders aus Mazedonien. Acta Mus. macedonici Sci. nat., Skoplje **1** : 91–116, 52 figs.

1799.—[Karaman, Z. V.] II. Beitrag zur Kenntnis der Nycteribien. Acta Mus. serb. merid., Skoplje **1** 1939 : 31–44, 11 figs. [Dipt.]

Karazeeva, Z. F. *see* Breev & Karazeeva.

1800.—Karlson, P. & **Hanser,** G. Bildungsort und Erfolgsorgan des Puparisierungshormons der Fliegen. Z. Naturf., Tubingen **8B** : 91–96, 2 figs. [Dipt.]

Karp, H. *see* Pratt & Karp.

Karpova, A. I. *see* Grigor'eva & Karpova.

Kartashev, N. N. *see* Dement'ev, Kartashev & Soldatova.

1801.—Kartman, L. A correlation of Malpighian tubule size with development of *Dirofilaria immitis* in the mosquito. J. Parasit., Lancaster, Pa. **39**: 671–672, 1 fig. [Dipt.]

1802.—Kashef, A. Sur la présence de formations particulières dans les mandibules de *Lariophagus distinguendus* Först. (Hym. Pteromalidae). Bull. Soc. ent. Fr., Paris **58**: 141–143, 3 figs.

1803.—Kasy, F. *Phytometra* (*Plusia*) *zosimi* Hbn.: über die ersten Stände, Biologie und Zuchtergebnisse. Z. wien. ent. Ges., Vienna **38**: 321–333. [Lep.]

1804.—Kaszab, Z. Revision der aethiopischen Arten der Meloiden-Gattung *Epicauta* Redtb. Acta biol., Budapest **4**: 481–513. [Col.]

1805.—Kaszab, Z. Revision der Meloiden-Gattung *Cyaneolytta* Pér. (Col.). Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4**: 81–93.

1806.—Kaszab, Z. Einige neue *Cylindrothorax*-Arten (Col.,Meloidae). Ann. Mag. nat. Hist., London (12) **6**: 857–861.

1807.—Kaszab, Z. Studien über südafrikanischen Meloiden (Coleoptera). Ann. S. Afr. Mus., Cape Town **41**: 61–79.

1808.—Kaszab, Z. The 3rd Danish Expedition to Central Asia. Zoological results 11. Meloiden (Insecta) aus Afghanistan. Vidensk. Medd. dansk naturh. Foren. Kbh. **115**: 305–311. [Col.]

Kathan, R. H. *see* DeCoursey, Webster, Taylor, Leopold & Kathan.

1809.—Katiyar, K. N. Variation and post-embryonic growth in the number of antennal segments in three species of Indian short-horned grasshoppers (Orthoptera, Acridoidea), together with observations on the number of segments in adult Acrididae based on the collections at the Forest Research Institute, Dehra Dun. Agra Univ. J. Res. (Sci.) **2**: 331–355, 3 fldg. tables, 3 figs.

Katiyar, K. N. *see* Roonwal, Mathur, Bhasin, Singh, Pant, Chandra, Katiyar & Mathur.

1810.—Kato, K. On the luminous fungus gnats in Japan. Sci. Reps Saitama Univ., Urawa (B) **1**: 59–63, 3 figs. [Dipt.]

1811.—Katô, M. The metabolism of niacin in insects. Science, Lancaster, Pa. **118**: 654. [Dipt.]

1812.—Katô, M. General consideration on the diurnal rhythm in activities of the strawberry weevil with special reference to the body temperature and the environmental temperature factors. [In Japanese with English summary.] Zool. Mag., Tokyo **52** 1940: 225–238, 13 figs. [Col.]

1813.—Katô, M., **Matsuda,** T. & **Yamasita,** Z. Associative ecology of insects found in the paddy field cultivated by various planting forms. Sci. Rep. Tôhoku Univ., Sendai (4) **19** 1952: 291–301, 6 figs.

Katô, M. *see* Kurihara & Katô; Yoshimeki, Katô & Tomita.

1814.—Kato, S. Odiniidae of Japan, with descriptions of a new species and a new subspecies (Diptera). Insecta matsum., Sapporo **18** 1952: 1–8, 6 figs.

1815.—Kauffmann, G. *Pyrgus alveus accreta* Verity 1925, eine für Deutschland neue Hesperiide. Ent. Z., Frankfurt a. M. **62**: 169–171, 3 figs. [Lep.]

1816.—Kauffmann, G. Considérations au sujet de *Pyrgus reverdini* Oberthür. Rev. franç. Lépid., Paris **13** (1952): 284–286.

1817.—Kaussari, M. & **Balachowsky,** A. S. Sur un *Diaspidiotus* (Hom. Coccoidea) nouveau vivant sur *Tamarix* dans le sud de l'Iran. Rev. Path. vég., Paris **32**: 24–27, 1 pl.

1818.—Kaussari, M. & **Balachowsky,** A. S. Sur un *Aspidaspis* Ferris (Coccoidea-Aspidiotini) nouveau du sud de l'Iran. Rev. Path. vég., Paris **32**: 99–102, 5 figs. [Hem.]

Kaussari, M. *see* Balachowsky & Kaussari.

1819.—Kautz, H. *Pieris napi* L. und *bryoniae* O., neue *confluens*-Formen. Z. wien. ent. Ges., Vienna **38** : 25–27. [Lep.]

1820.—Kautz, H. Bemerkungen zu den Arten *Pieris napi* L., *bryoniae* O., *adalwinda* Fruhst. und zur mod. *hibernica* Schmidt. Z. wien. ent. Ges., Vienna **38** : 258–261. [Lep.]

1821.—Kawada, A. Studies on some Pierid pupae in Nippon. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939 : 440–446, 14 figs. [Lep.]

1822.—Kawamura, K. Mitotic abnormalities induced by nitrogen mustard in grasshopper spermatocytes (Studies on abnormal nuclear divisions, 5). J. Fac. Sci. Hokkaido Univ., Sapporo (Zool.) **11** 1952 : 51–56, 1 pl. [Orth.]

Kawase, E. *see* Sugiyama & Kawase.

1823.—Kazda, V. Ueber die Beziehungen von Schad- und Massenauftreten des grossen Triebrüsslers (*Ceuthorrhynchus napi* Gyll.) zu seinen Wirtspflanzen. [In Czech with German summary.] Zool. ent. Listy, Brno **2** : 181–192, 2 pls. [Col.]

1824.—Keilbach, R. Die Fenstermücke *Phryne fenestralis* Scop. Wiss. Z. Univ. Halle **1** : 49–50, 7 figs. [Dipt.]

1825.—Keiser, F. *Ramuliseta lindneri* n. sp. eine Lochmostyliine aus Ostafrika (Dipt. Pyrgotidae). Bonn. zool. Beitr. **3** (1952) : 325–327, 1 fig.

1826.—Keister, M. L. Some observations on pupal respiration in *Phormia regina*. J. Morph., Philadelphia, Pa. **93** : 573–587, 9 figs. [Dipt.]

Keister, M. L. *see* Buck & Keister ; Yokoyama & Keister.

1827.—Kéler, S. von. Resultados de um reconhecimento zoológico no Alto Limpopo effectuado pelos Drs. F. Zumpt e J. A. T. Santos Dias. IV. Notes on some Mallophaga from mammals and gallinaceous birds in Moçambique and South Africa. Moçambique, Lourenço Marques no. **72** : 13–62, 25 figs.

1828.—Kellen, W. R. A quantitative sampler for aquatic insects. J. econ. Ent., Menasha **46** : 913–914.

Kelner, A. *see* Perlitsch & Kelner.

1829.—Kennedy, J. S. Host plant selection in Aphididae. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 106–113. [Hem.]

1830.—Kennedy, J. S. & Mittler, T. E. A method of obtaining phloem sap via the mouth-parts of Aphids. Nature, London **171** : 528. [Hem.]

1831.—Kennington, G. S. The effects of reduced atmospheric pressure on populations of *Tribolium castaneum* and *Tribolium confusum*. Physiol. Zool., Chicago **26** : 179–203, 7 figs. [Col.]

1832.—Kent, N. E. Mosquito survey in the Melbourne area. Vict. Nat., Melbourne **70** : 117–121. [Dipt.]

1833.—Kerr, W. E. & L. S. Concealed variability in the X-chromosome of *Drosophila melanogaster*. Amer. Nat., New York **86** 1952 : 405–408. [Dipt.]

Kerr, W. E. *see* Ris & Kerr.

1834.—Kerrich, G. J. Report on Encyrtidae associated with mealybugs on cacao in Trinidad, and on some other species related thereto. Bull. ent. Res., London **44** : 789–810, 25 figs. [Hym.]

1835.—Kerrich, G. J. A preliminary study of the European species of the genus *Eudiaborus* mihi (Hym. Ichneumonidae). Opusc. ent., Lund **18** : 151–159, 2 figs.

1836.—Kessel, E. L. Rediscovery of Snow's two species of *Protoclythia* (Diptera : Clythiidae). Wasmann J. Biol., San Francisco **10** (1952) : 359–361.

Ketchel, M. *see* Schneidermann, Ketchel & Williams.

1837.—[Ketskaroska, J. V.] The Phlebotomin species in the surrounding of Skopje. [In Serbian with English summary.] Acta Mus. macedonici Sci. nat., Skoplje **1** : 1–20, 19 figs. [Dipt.]

1838.—Kettle, D. S. The effect of light on the biting activity of *Chrysops silacea* (Diptera, Tabanidae). Ann. trop. Med. Parasit., Liverpool **47** : 335–339, 2 figs.

1839.—Kevan, D. K. McE. A preliminary list of the Mantodea of Trinidad, B.W.I. Ann. Mag. nat. Hist., London (12) **6** : 809–816. [Orth.]

1840.—Kevan, D. K. McE. The status of *Tetrix bipunctata* (Linn.) (Orthoptera ; Tetrigidae) in Britain. Ent. Gaz., London **4** : 204–224, 5 figs.

1841.—Kevan, D. K. McE. On the identity of *Gryllus scaber* Fabricius, 1798 (Orthopt., Acrididae). Ent. Medd., Copenhagen **26** : 482–488, 1 fig.

1842.—Kevan, D. K. McE. The generic name *Dictyophorus* Thunberg, 1815 (Orth., Acrididae). Ent. mon. Mag., London **89** : 103–105.

1843.—Kevan, D. K. McE. An unusual stridulatory mechanism in *Xyronotus aztecus* Sauss. (Orth., Acrididae). Ent. mon. Mag., London **89** : 169–170, 2 figs.

1844.—Kevan, D. K. McE. On the gender of the generic name *Ommexecha* Serville, 1831, and the correct rendering of the name *Chrotogonus homalodemus* (Blanchard, 1836) (Orth., Acrididae). Ent. mon. Mag., London **89** : 221–223.

1845.—Kevan, D. K. McE. An unusually massive termitarium from the Ogaden. Entomologist, London **86** : 166–167, 1 fig. [Isopt.]

1846.—Kevan, D. K. McE. The identity of *Ectobius pallens* Stephens, 1835 (Dictyoptera : Blattodea). Entomologist, London **86** : 169–171, 1 fig.

1847.—Kevan, D. K. McE. A new species of *Ramakrishnaia* I. Bol. from the Nilgiris (Orthoptera, Acrididae). Indian J. Ent., New Delhi **14** (1952) : 269–272, 5 figs.

1848.—Kevan, D.K. McE. Notes on the distribution of British Orthopteroids. J. Soc. Brit. Ent., Bournemouth **4** : 119–122, 183–185.

1849.—Kevan, D. K. McE. An interesting new pyrgomorphine grasshopper (Orthoptera : Acrididae) in the U.S. National Museum. J. Wash. Acad. Sci. **43** : 117–119, 1 fig.

1850.—Kevan, D. K. McE. A new species of *Tenuitarsus* I. Bolívar, 1904, from the Sudan (Orthopt., Acrid., Pyrgomorphinae). Proc. R. ent. Soc. London (B) **22** : 41–54, 22 figs.

1851.—Kevan, D. K. McE. Some difficulties raised in applying the rule of priority to supra-generic nomenclature, as illustrated by the name Pyrgomorphinae (Insecta : Orthoptera) and its alternatives. Publ. Zool. Sect. Univ. Nottingham Sch. Agric., Sutton Bonington no. 38 11 pp. multigraph.

1852.—Kevan, D. K. McE. The Ceylonese species of *Orthacris* I. Bolívar, 1884 (Orthoptera, Acrididae, Pyrgomorphinae). Spolia zeylan., Colombo **27** : 17–34, 8 figs.

1853.—Key, K. H. L. A provisional check-list of the Acridoidea of Tasmania (Orthoptera). Pap. roy. Soc. Tasmania, Hobart **86** 1952 : 127–130.

1854.—Khalifa, A. Biological observations on *Polistes gallicus* L. and *Polistes foederata* Koch, with special reference to stylopization (Hymenoptera : Vespidae-Polistinae). Bull. Soc. Fouad ler Ent., Cairo **37** : 371–404, 8 figs.

1854a.—Kahn [sic=**Khan**], N. H. Oviposition and hatching in some species of Tabanidae (Diptera). Ann. ent. Soc. Amer., Columbus **45** (1952) : 550–552, 1 fig.

1855.—Khan, N. H. Effects of weather conditions on horsefly populations. Ecology, Lancaster, Pa. **34** : 414–415. [Dipt.]

1856.—Khan, N. H. Oviposition in Tabanidae (Diptera). Indian J. Ent., New Delhi **15** : 39–44, 3 figs.

1857.—Khan, N. H. The bionomics of Tabanid larvae (Diptera). J. Bombay nat. Hist. Soc. **51** : 384–392, 2 pls.

1858.—[**Khonyakina,** Z. P.] Data on the biology of the great toad (*Bufo bufo* L.) of the Caucasian reserve park. [In Russian.] Zool. Zhurn., Moscow **32** : 1193–1197.

1859.—**Kiełczewski,** B. Observations on the mass occurrence of *Lymantria monacha* L. in 1947, 1948 and 1949 on the ground of the theory of mass occurrence. [In Polish with English summary.] Bull. ent. Pologne, Wrocław **20** (1950) 1951 : 37–54, 2 figs. [Lep.]

1860.—**Kikkawa,** H. Biochemical genetics of *Bombyx mori* (silkworm). Advanc. Genet., New York **5** : 107–140, 11 figs. [Lep.]

1861.—**Kikkawa,** H. Studies on the gene-hormones in *Bombyx mori* (I). The v+-substance. [In Japanese with English summary.] Zool. Mag., Tokyo **52** 1940 : 191–199. [Lep.]

1862.—**Kikkawa,** H. Studies in the color substances found in *Bombyx* and *Drosophila* (A preliminary note). Zool. Mag., Tokyo **53** 1941 : 507–509. [Lep., Dipt.]

1863.—**Kikkawa,** H. The relation between the egg-color and the hatchiability of *Bombyx mori*. [In Japanese with English summary.] Zool. Mag., Tokyo **54** 1942 : 245–249. [Lep.]

Kilby, B. A. *see* Bowen & Kilby.

1864.—**Kimball,** C. P. A proposed revision of the check-list of Florida Lepidoptera. Florida Ent., Gainesville **36** : 103–107.

1865.—**Kimmins,** D. E. Miss L. E. Chessman's expedition to New Caledonia, 1949—orders Odonata, Ephemeroptera, Neuroptera and Trichoptera. Ann. Mag. nat. Hist., London (12) **6** : 241–257, 24 figs.

1866.—**Kimmins,** D. E. A key to the European species of *Wormaldia* (Trichoptera, Philopotamidae), with descriptions of two new subspecies. Ann. Mag. nat. Hist., London (12) **6** : 801–808, 10 figs.

1867.—**Kimmins,** D. E. Entomological results from the Swedish expedition 1934 to Burma and British India. Trichoptera. The genus *Rhyacophila* Pictet (Fam. Rhyacophilidae). Ark. Zool., Stockholm (N.S.) **4** : 505–555, 43 figs.

1868.—**Kimmins,** D. E. New Hawaiian Coniopterygidae (Neuroptera). Proc. Hawaii. ent. Soc., Honolulu **15** : 37–39.

Kimmins, D. E. *see* Mosely & Kimmins.

1869.—**Kimura,** Y. Spontaneous occurrence of testis-ova in a grasshopper, *Oxya velox*. [In Japanese with English summary.] Zool. Mag., Tokyo **60** 1951 : 213–214, 1 fig. [Orth.]

King, E. W. *see* Ross & King.

1870.—**King,** R. C. Reduction in productivity and recessive lethal mutation following X-radiation of female *Drosophila melanogaster*. Amer. Nat., New York **86** 1952 : 391–398, 2 figs. [Dipt.]

1871.—**King,** R. C. Studies with radiophosphorus in *Drosophila*. I. The mutagenic effectiveness of radioactive phosphorus in adult male *Drosophila melanogaster*. J. exp. Zool., Philadelphia **122** : 541–575, 9 figs. [Dipt.]

1872.—[**Kipenvarlits,** A. F.] On the changes of the soil fauna of swamps under the influence of melioration. [In Russian.] Zool. Zhurn., Moscow **32** : 348–357.

1873.—**Kirchner,** H.-A. Der Verlust einzelner Gliedmassen in seiner Wirkung auf das Leben der Stabheuschrecken. Z. angew. Ent., Berlin **35** : 183–186. [Orth.]

1874.—**Kiriakoff,** S. G. Les Thyretidae du Musée royal du Congo belge (Lepidoptera Notodontoidea). Ann. Mus. Congo belge, Tervuren (Sér. 8°) Sci. zool. **26** : 7–91, 7 pls.

1875.—**Kiriakoff,** S. G. L'usage des catégories taxonomiques intermédiaires dans la classification phylogénétique des Lépidoptères. Ann. Soc. zool. Belg., Brussels **83** 1952 : 87–106, 1 fig.

1876.—**Kiriakoff,** S. G. Zoogéographie et phylogénie. Bull. Ann. Soc. ent. Belg., Brussels **89** : 126–134.

1877.—Kiriakoff, S. G. Recherches sur les organes tympaniques des Lépidoptères, en rapport avec la classification X. Hyblaeidae. Bull. Ann. Soc. ent. Belg., Brussels **89** : 258–263, 1 fig.

1878.—Kiriakoff, S. G. De gehoororganen en de systematiek der Lepidoptera. Ent. Ber., Amsterdam **14** : 246–250, 2 figs.

1879.—Kiriakoff, S. G. Arctiidae nouveaux du Musée Royal du Congo belge. Lambillionea, Brussels **53** : 50–54, 1 pl. [Lep.]

1880.—[Kirichenko, A. N.] True Hemiptera of European USSR. Key and bibliography. [In Russian.] Opred. Faune SSSR, Moscow **42** 1951: 1–423, 416 figs.

1881.—[Kirichenko, A. N.] New and little-known Hemiptera-Heteroptera of Tadzhikistan. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **10** 1952 : 140–198, 47 figs.

1882.—[Kirichenko, A. N.] General features of the Heteropterous fauna of the Cis-Ural region in connection with peculiarities of their feeding. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952 : 126–132. [Hem.]

1883.—Kirk, R. & **Lewis,** D. J. Taxonomy of the Ethiopian sandflies (*Phlebotomus*). V. On *Phlebotomus africanus* Newstead, 1912. Ann. trop. Med. Parasit., Liverpool **47** : 126–131, 1 fig. [Dipt.]

1884.—Kisimoto, R. On the determination of the larval instar in *Epilachna sparsa orientalis*. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** : 199–202. [Col.]

1885.—Kisimoto, R. On the individual variation of several morphological and physiological characters under different environmental conditions. [In Japanese with English summary.] Res. Popul. Ecol., Kyoto **2** : 65–78, 7 figs. [Col.]

1886.—Kitchen, W. H. & **Gall,** D. A controlled humidifier for insect breeding rooms. Bull. ent. Res., London **44** : 367–369, 1 fig.

1887.—Kitzmiller, J. B. Mosquito genetics and cytogenetics. Rev. brasil. Malariol., Rio de Janeiro **5** : 285–359, 5 figs. [Dipt.]

1888.—Kiyoku, M. Relative humidity as a factor influencing the resistance of *Callosobruchus chinensis* to heat. [In Japanese with English summary.] Botyu-Kagaku, Kyoto **17** 1952 : 156–161, 2 figs. [Col.]

Kleinfeld, R. *see* Swift & Kleinfeld.

1889.—Klimesch, J. Die Raupe von *Depressaria* (*Schistodepressaria*) *cervicella* HS. (Lep., Oecophoridae). Z. wien. ent. Ges., Vienna **38** : 22–25, 9 figs.

1890.—Klimesch, J. Die europäischen *Trifurcula*- und *Ectoedemia*-Arten (Lep., Nepticulidae). Z. wien. ent. Ges., Vienna **38** : 160–170, 191–196, 22 figs.

1891.—Klimesch, J. Die an Caryophyllaceen lebenden europäischen *Gnorimoschema* Busck (=*Phthorimaea* Meyr.)-Arten. Ein Beitrag zur Kenntnis der Genitalmorphologie der Gelechiiden (Lep.) sowie Beschreibung von zwei neuen Arten. I. Teil : Die *leucomelanellum*-Gruppe. Z. wien. ent. Ges., Vienna **38** : 225–239, 275–282, 311–319, 46 figs.

1892.—Klock, J. W. & **Bidlingmayer,** W. L. An adult mosquito sampler. Mosquito News, Albany, N.Y. **13** : 157–159, 1 fig.

1893.—Klock, J. W., **Pimentel,** D. & **Stenburg,** R. L. A mechanical flytagging device. Science, New York **118** : 48–49, 1 fig.

1894.—Kloft, W. Phototaktisches Verhalten und Wintereireife bei *Cinara laricis* Walk. (Aphidina, Cinarini C.B.). Naturwissenschaften, Berlin **40** : 612. [Hem.]

1895.—Kloft, W. & **Lange,** R. Ueber einige entomologisch-ökologische Beobachtungen in einem extrem trocken-heissen Biotop des Nürnberger Reichswaldes. Nachr. naturw. Mus. Aschaffenburg no. 40 : 43–48, 1 pl.

Kloot *see* Van der Kloot.

1896.—Knight, H. H. New species of Miridae from Missouri (Hemiptera). Iowa St. Coll. J. Sci., Ames **27** : 509–518.

1897.—Knight, K. L. Two new species of mosquitoes from the Yemen (Diptera : Culicidae). J. Wash. Acad. Sci. **43** : 320–325, 2 figs.

1898.—Knight, K. L. Hybridization experiments with *Culex pipiens* and *C. quinquefasciatus* (Diptera, Culicidae). Mosquito News, Albany, N.Y. **13** : 110–115, 1 fig. [Dipt.]

1899.—Knight, K. L. The mosquitoes of the Yemen (Diptera, Culicidae). Proc. ent. Soc. Wash. **55** : 212–234, 2 figs.

1900.—Knight, K. L. Suggestions for the measurement of variation in the *Culex pipiens* complex. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 297–298. [Dipt.]

1901.—Knight, K. L. & **Hull,** W. B. The *Aedes* mosquitoes of the Philippine Islands. III. Subgenera *Aedimorphus*, *Banksinella*, *Aedes* and *Cancraëdes* (Diptera, Culicidae). Pacif. Sci., Honolulu **7** : 453–481, 13 figs.

1902.—Knipe, F. W. & **Frings,** H. An improved cage for flies. J. econ. Ent., Menasha **45** (1952) : 1099.

1903.—Knowlton, G. F. Observations of *Celerio lineata*, the white-lined sphinx, in Utah. Lepid. News, New Haven **7** : 11–12.

1904.—Knowlton, G. F. & **Hanson,** W. J. Celery field insects of Utah. Part II. Mimeogr. Ser. Utah [agric. Exp. Sta.], Logan no. 399 : 1–10.

Knowlton, G. F. *see* Bohart & Knowlton ; Wray & Knowlton.

Knudsen, J. P. *see* Clarke & Knudsen.

1905.—Knull, J. N. New species of *Acmaeodera* from California (Coleoptera : Buprestidae). Ent. News, Lancaster, Pa. **64** : 144–145, 1 fig.

1906.—Kobayashi, M. Cyto-histological studies of the oenocyte in the silkworm, *Bombyx mori* L. I. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **18** : 125–140, 23 figs. [Lep.]

1907.—Kobayashi, T. The developmental stages of six species of the Japanese Pentatomoidea (Hemiptera). Sci. Reps Matsuyama agric. Coll. no. 11 : 73–89, 6 figs.

1908.—Koch, C. Die Tenebrioniden des südlichen Afrikas XIV. Ueber einige neue Molurini aus dem Ungarischen Naturwissenschaftlichen Museum zu Budapest (Vorarbeiten zu einer Monographie der Molurini, 4). Ann. hist.-nat. Mus. hung., Budapest (N.S.) **3** : 137–181, 2 pls. 2 figs. [Col.]

1909.—Koch, C. The Tenebrionidae of southern Africa XXI. On some new endemic Opatrinae from the Namib desert. Ann. Transv. Mus., Pretoria **22** : 231–252, 8 figs. [Col.]

1910.—Koch, C. The Tenebrionidae of southern Africa. XI : new Epitragini and Cryptochilini from the British Museum. Proc. R. ent. Soc. London (B) **22** : 155–163, 14 figs. [Col.]

1911.—Koch, C. The Tenebrionidae of southern Africa XVII. Contribution to the fauna of Angola. Publ. cult. Cia Diamant. Angola, Lisbon no. 16 ; 63–96, 28 figs. [Col.]

1912.—Koch, C. The Tenebrionidae of southern Africa. III. Tenebrionidae from a nest of *Tatera*. Rev. Zool, Bot. afr., Tervuren **47** : 1–30, 19 figs. [Col.]

1913.—Kocher, L. Notes sur les *Timarcha* marocaines (Coléopt. Chrysomélides). Contribution à l'étude systématique du genre. Bull. Soc. Sci. nat. Maroc, Rabat **31** (1951) : 313–332, 4 maps, 2 figs.

1914.—Kocher, L. Contribution à l'étude des *Cebrio* marocains (Col. Cebrionidae). Bull. Soc. Sci . nat. Maroc, Rabat **32** (1952) : 301–323, 8 figs.

1915.—Kocher, L. Récoltes de M. Roulleau dans le Sud marocain. C.R. Soc. Sci. nat. Maroc, Rabat **1953** : 89. [Col.]

1916.—Kocher, L. Observations sur la ponte de *Mylabris tricincta* Chevr. C.R. Soc. Sci. nat. Maroc **1953** : 93. [Col.]

1917.—Kocher, L. Localisations nouvelles ou intéressantes de Coléoptères marocains. Rabat, Soc. Sci. nat. Maroc, Trav. Inst. sci. chérifien no. 7 142 pp., 1 fidg. map.

1918.—Kocher, L. & Nègre, R. Observations sur les peuplements phytosociologiques et entomologiques des environs d'Ifrane (12. vi. 1951). Bull. Soc. Sci. nat. Maroc, Rabat **31** (1951): 265–268. [Col.]

1919.—Koenig, M. Ueber den Stickstoff- und den Aminosäuregehalt des Bienenblutes. Naturwissenschaften, Berlin **40**: 583, 1 fig. [Hym.]

1920.—Köhler, P. Les Noctuidae argentinas, subfamilia Cucullianae. Acta zool. lilloana, Tucuman **12** (1951) 1952: 135–182. [Lep.]

1921.—Kohno, M. Description of a new species of the genus *Alloperla*, with a note on *Acroneuria jezoensis* Okamoto (Plecoptera). Mushi, Fukuoka **25**: 5–7, 4 figs.

1922.—Kohno, M. New species of *Isoperla* and *Alloperla* with a description of the larva of *Isogenus scriptus* Klapálek (Plecoptera). Mushi, Fukuoka **25**: 63–69, 4 pls.

1923.—Kohno, M. New species of Capnidae (Plecoptera) from Japan. Philipp. J. Sci., Manila **82**: 199–206, 3 figs.

1924.—Koidsumi, K. Compensatory inter-relationship between the amount and the melting-point of the epicuticular and cocoon lipid in some Saturniid insects. Annot. zool. jap., Tokyo **26**: 162–167. [Lep.]

1925.—Koidsumi, K. Effects of environmental factors upon the inter-relationship between the amount and the melting-point of the epicuticular lipid in some insects. Annot. zool. jap., Tokyo **26**: 168–175. [Lep.]

1926.—Koidsumi, K. Rôle of water content and epicuticular lipid on the termination of hibernation in the rice stem borer, *Chilo simplex* Butler. Oyo-Dobuts.-Zasshi, Tokyo **16** 1951: 119–124. [Lep.]

1927.—Koidsumi, K. & Makino, K. On the mechanism of water absorption in hibernating larvae of the rice-stem borer, *Chilo simplex* Butler in spring. Oyo-Dobuts.-Zasshi, Tokyo **18**: 1–6. [Lep.]

1928.—Koidsumi, K. & Shibata, K. Effects of low temperatures upon the termination of aestivation of pupae of tropical moth (*Eriogyna pyretorum* Westwood). Oyo-Dobuts.-Zasshi, Tokyo **17**: 103–110. [Lep.]

1929.—Koidsumi, K. & Shibata, K. Gewichtsverlustkurve der latenten Entwicklung der *Eriogyna*puppen. [In Japanese with German summary.] Zool. Mag., Tokyo **51** 1939: 416–424, 1 fig. [Lep.]

1930.—Koizumi, K. Notes on the two iris-mining *Dizygomyza* from Japan, with description of a new species (Diptera, Agromyzidae) (Taxonomy and bionomics of Dipterous pests for farm and garden in Japan II). [In Japanese with English summary.] Sci. Rep. Fac. Agric. Okayama Univ. no. 2: 44–56, 4 figs.

1931.—Koizumi, K. *Melanagromyza lappivora*, a new species of root miner of burdock in Japan (Diptera, Agromyzidae) (Taxonomy and bionomics of Dipterous pests for farm and garden in Japan. III). Sci. Rep. Fac. Agric. Okayama Univ. no. 3: 46–51, 1 pl.

1932.—[Kolobova, A. N.] Fluctuations in the abundance of the lucerne bug in connection with changes in meteorological conditions. [In Russian.] Zool. Zhurn., Moscow **32**: 449–456. [Hem.]

1933.—Komai, T. Composition of wild populations in the Lycaenid butterfly *Neozephyrus taxila*. Amer. Nat., Lancaster, Pa. **87**: 87–95, 2 figs. [Lep.]

1934.—Komárek, J. & Tykač, J. Atlas motýlů. [2nd edn.] Prague, Melantrich 1952 113 pp. 48 col. pls. [Lep.]

1935.—Kôno, H. & Takahasi, H. Eine neue *Tabanus*-Art, *Tabanus* (*Tabanus*) *kinoshitai* Kôno et Takahasi. Zool. Mag., Tokyo **51** 1939: 759–760, 1 fig. [Dipt.]

1936.—Kono, T. On the estimation of insect population by time unit collecting. [In Japanese with English summary.] Res. Popul. Ecol., Kyoto **2**: 85–94, 6 figs.

1937.—Kono, T. Basic unit of population observed in the distribution of the rice-stem borer, *Chilo simplex*, in a paddy field. Pattern of the spatial distribution of insects, 4th report. [In Japanese with Eng-

lish summary.] Res. Popul. Ecol., Kyoto **2**: 95–105, 4 figs. [Lep.]

1938.—Kontkanen, P. On the sibling species in the leafhopper fauna of Finland (Homoptera, Auchenorrhyncha). Arch. Soc. zool.-bot. fenn. Vanamo, Helsinki **7** (1952): 100–106.

Köpf, H. *see* Lüers, Köpf & Lüers.

1939.—Korbel, L. Beitrag zur Kenntnis der Gattung *Anopheles* Mg. und ihrer Arten (Diptera, Culicidae) aus der Umgebung von Bratislava. [In Czech with German summary.] Biol. Sborn. slovensk. Akad., Bratislava **7** 1952 no. 3–4: 133–145.

1940.—Korbel, L., **Luxová,** M. & **Lux,** A. Die Pappelmotte (*Phyllocnistis sufusella*) als Schädling der Pappelbaumschulen. [In Czech with German summary.] Biol. Sborn. slovensk. Akad., Bratislava **7** 1952: no. 1–2: 127–142, 11 figs. [Lep.]

Korbel, L. *see* Gulička, Jamriška & Korbel.

1941.—Kormilev, N. A. III. Beitrag zur Kenntnis der Verbreitung jugoslavischer Hemiptera - Heteroptera (Serbien und Südserbien). Ann. Mus. serb. merid., Skoplje **1** 1939: 21–29, 2 figs.

1942.—Kormilev, N. A. The first apterous Aradid from Argentina (Hemiptera). Dusenia, Curitiba **4**: 125–126, 1 fig.

1943.—Kormilev, N. A. Notes on Neotropical Aradidae III, (Hemiptera). On some apterous Mezirinae from Brazil. Dusenia, Curitiba **4**: 229–242, 1 pl.

1944.—Kormilev, N. A. Notes on Colobathristidae from Borneo and Java in the collections of the Museum of Natural History in Basle (Hemiptera). Mitt. schweiz. ent. Ges., Berne **26**: 287–292.

1945.—Kormilev, N. A. Notas sobre Phymatidae neotropicales V (Hemiptera). Publ. Misión Estud. Pat. reg. argent., Buenos Aires **24** nos. 83–84: 57–61, 1 fig.

1946.—Kormilev, N. A. Notas sobre Phymatidae nearcticas I (Hemiptera). Publ. Mis. Estud. Pat. reg. argent., Buenos Aires **24** nos. 83–84: 63–67, 7 figs.

Kornaś, J. *see* Wojtusiak, Kałkowski, Medwecka-Kornaś & Kornaś.

1947.—Koske, T. Artkreuzungsversuche in der *obscura*-Gruppe der Gattung *Drosophila*. Z. indukt. Abstamm.-u. VererbLehre, Berlin **85**: 373–381, 1 fig. [Dipt.]

Koske, T. *see* Mainx, Koske & Smital; Mainx, Kunze & Koske.

1948.—Kosswig, C. & **Şengün,** A. Haben die Riesenchromosomen der *Chironomus*-Larven eine definitive Strukturierung? Naturwissenschaften, Berlin **40**: 111–112, 2 figs. [Dipt.]

Kosswig, C. *see* Şengün & Kosswig.

1949.—Kostrowicki, A. S. Studies on Lepidoptera of xerothermic hills in the valley of lower Nida. [In Polish with English summary.] Fragm. faun. Mus. zool. polon., Warsaw **6**: 263–447, 2 pls. 61 figs.

Kosugi, K. *see* Watanabe & Kosugi.

1950.—Kovács, L. Die Wirkung der gelegentlichen Gesellschaften auf die Dispersion der Schmetterlingsimagos. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **3**: 191–201. [Lep.]

1951.—Kovács, L. The *Eupithecia* communities and the problems of their evolution in our swamps and reeds (Lepid.). Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4**: 169–179.

1952.—Kovács, L. Die Gross-Schmetterlinge Ungarns und ihre Verbreitung. [In Magyar with German summary.] Folia ent. hung., Budapest (N.S.) **6**: 77–164, 1 fldg. map. [Lep.]

Koyama, M. *see* Sasakawa & Koyama.

1953.—Koyama, N. & **Fukushima,** T. Determination of the larval instar in the large 28-spotted lady beetle by its dorsal bristle. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **9**: 69–72, 4 figs. [Col.]

1954.—[Kozhanchikov, I. V.] Contribution to the understanding of the mass increase of insects. [In Russian.] Zool. Zhurn., Moscow **32**: 195–202.

Kozima, K. *see* Watanabe & Kozima.

Krahmer, M. W. *see* Schmidt & Krahmer.

1955.—Kramář, J. *Anopheles plumbeus* Steph. in Czechoslovakia. [In Czech with English summary.] Zool. ent. Listy, Brno **1** 1952: 90–94, 4 figs. [Dipt.]

1956.—Kramář, J. Beitrag zur Kenntnis der Gebirgsmücken in ČSR. [In Czech with German summary.] Zool. ent. Listy, Brno **2**: 202–208, 2 figs. [Dipt.]

1957.—Kramář, J., **Weiser,** J. & **Rosický,** B. Beitrag zur Kenntnis der slowakischen Mücken. [In Czech with German summary.] Zool. ent. Listy, Brno **1** 1952: 196–203, 5 figs. [Dipt.]

Kramer, K. U. *see* Heerdt & Kramer.

1958.—Krause, G. Die Aktionsfolge zur Gestaltung des Keimstreifs von *Tachycines* (Saltatoria), insbesondere das morphogenetische Konstruktionsbild bei Duplicitas parallela. Arch. EntwMech. Org., Leipzig **146**: 275–370, 31 figs. [Orth.]

1959.—Krause, J. B. & **Ryan,** M. T. The stages of development in the embryology of the horned passalus beetle, *Popilius disjunctus* Illiger. Ann. ent. Soc. Amer., Columbus **47**: 1–20, 4 pls. [Col.]

1960.—Krauss, N. L. H. Notes on insects associated with *Lantana* in Cuba. Proc. Hawaii. ent. Soc., Honolulu **15**: 123–125.

1961.—Krombein, K. V. The wasps and bees of the Bimini Island group, Bahamas, British West Indies (Hymenoptera; Aculeata). Amer. Mus. Novit., New York no. 1633: 1–29, 5 figs.

1962.—Krombein, K. V. A note on the nesting behavior and prey of *Agenioideus* (*Agenioideus*) *humilis* (Cresson) (Hymenoptera, Pompilidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 113–115.

1963.—Krombein, K. V. A note on the nesting habits of *Megachile texana* Cresson (Hymenoptera, Megachilidae). Proc ent. Soc. Washington **55**: 84–85.

1964.—Krombein, K. V. Kill Devil Hills wasps, 1952 (Hymenoptera, Aculeata). Proc. ent. Soc. Washington **55**: 113–134.

1965.—Krombein, K. V. Biological and taxonomic observations on the wasps in a coastal area of North Carolina (Hymenoptera: Aculeata). Wasmann J. Biol., San Francisco **10** (1952): 257–341.

Krüger, F. *see* Jakovlev & Krüger.

1966.—Kruseman, G. Note on *Bombus jonellus* (Kirby). Ent. Ber., Amsterdam **14**: 382. [Hym.]

1967.—[Kryĭ'tsov, A. I.] The dependence of the variability of the melanisation of beetles on their basic coloration. [In Russian.] Zool. Zhurn., Moscow **32**: 915–919, 1 fig. [Col.]

1968.—[Kryzhanovskii, O. L.] Beetles of the genus *Carabus* of Central Asia. [In Russian.] Opred. Faune SSSR, Moscow **52**: 5–134, 110 figs. [Col.]

1969.—Kühlhorn, F. Die Verbreitung der Anophelen des *maculipennis*-Kreises in der Umgebung von München (Dipt.). NachrBl. bayer. Ent., Munich **2**: 9–13.

1970.—Kühlhorn, F. Die Verbreitung von *Anopheles bifurcatus* Meigen in der Umgebung von München (Dipt.). NachrBl. bayer. Ent., Munich **2**: 60–63.

1971.—Kühlhorn, F. Suddeutsche Orthoptera. NachrBl. bayer. Ent., Munich **2**: 71–72, 75–78.

Kühn, E. *see* Hadorn & Kühn.

1972.—Kuhn, O. Neue Crustacea Decapoda und Insecta aus den untersten $Lias_\varepsilon$ von Nordfranken. Palaeontographica, Stuttgart (A) **101** 1952: 153–166, 4 pls. 4 figs. [Fossil.]

1973.—Kühnelt, W. Beiträge zur Kenntnis der Bodentierwelt Kärntens und seiner Nachbargebiete. Carinthia II, Klagenfurt **143** Heft 2: 42–74, 1 pl.

Kuiken, K. A. *see* Reisen & others.

1974.—Kulkarny, H. L. & **Patel,** R. C. Blister leaf-galls of mango and their control. Curr. Sci., Bangalore **22**: 48.

Kulkarni, H. L. *see* Patel & Kulkarni.

1975.—Kullenberg, B. Nouvelles observations sur les rapports entre *Ophrys* et les insectes. Bull. Soc. Sci. nat. Maroc, Rabat **32** (1952): 175–179.

1976.—Kullenberg, B. Some observations on scents among bees and wasps (Hymenoptera). Ent. Tidskr., Stockholm **74**: 1–7.

Kumada, N. *see* Jameson & Kumada.

1977.—[Kumari, A. P.] Feeding of the golden plover and its importance in the forest zone of its distribution. [In Russian.] Zool. Zhurn., Moscow **32**: 288–293.

1978.—Kunze, E. Untersuchungen über die Paarungsaffinität bei Riesenchromosomen. Chromosoma, Berlin **5**: 501–510, 3 figs. [Dipt.]

1979.—Kunze, E. Artunterschiede im Bau der Riesenchromosomen in der Gattung *Simulium* Latr. Oest. zool. Z., Vienna **4**: 23–32, 7 figs. [Dipt.]

Kunze, E. *see* Mainx, Kunze & Koske.

Kurcheva, G. F. *see* Gilyarov & Kurcheva.

Kurian *see* Chandy Kurian.

1980.—Kurihara, Y. & **Katô,** M. Associative ecology of the mosquito larvae and their biotic environments in the stone basin. Sci. Rep. Tôhoku Univ., Sendai (4) **19** 1952: 339–347, 3 figs. [Dipt.]

1981.—Kurir, A. Vergrösserung der Zahl der Raupenstadien und Verlängerung des Raupenlebens durch die Nahrung. Bodenkultur, Vienna **6** 1952: 355–382, 17 figs. [Lep.]

1982.—Kurir, A. Die Frasspflanzen des Schwammspinners (*Lymantria dispar* L.) (Beitrag zur Ernährungsbiologie des Schwammspinners). Z. angew. Ent., Berlin **34**: 543–586, 4 figs. [Lep.]

Kurokawa, H. *see* Moriwaki, Okada, Ohba & Kurokawa.

1983.—Kurosawa, M. A new species of *Aeolothrips* from Nippon. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939: 577–580, 1 fig. [Thysanopt.]

1984.—Kurosawa, M. A new specimen of *Sericothrips* from Manchuria. Zool. Mag., Tokyo **53** 1941: 548–549, 1 fig. [Thysanopt.]

1985.—Kurosawa, T. Notes on the food-plants of *Epilachna pustulosa* Kôno (Coleoptera, Coccinellidae). [In Japanese with English summary.] Oyo-Kontyu, Tokyo **9**: 12–16.

1986.—Kurosawa, Y. A revision of the "*rutilans-bellula*" group of the genus *Lampra* Lacordaire in Japan, Korea, and Manchuria (Coleoptera, Buprestidae). [In Japanese with English summary.] Bull. nat. Sci. Mus., Tokyo no. **32**: 67–82, 1 pl. 1 fig.

1987.—Kurosawa, Y. Synonymies and identifications of genus *Coraebus* from Eastern Asia, with descriptions of several new forms (Coleoptera, Buprestidae). Bull. nat. Sci. Mus., Tokyo no. **33**: 96–109, 4 figs.

1988.—Kurosawa, Y. Seven melanic forms of *Argynnis* in the collection of the National Science Museum of Japan. Notes on aberrant forms of Japanese butterflies (I). Nat. Sci. & Mus., Tokyo **20**: 13–16, 2 pls. [Lep.]

Kurosawa, Y. *see* Nakane & Kurosawa.

1989.—Kusdas, K. Ein Beitrag zur Schmetterlingsfauna des Ennsdorfer Gebietes in Niederösterreich. Z. wien. ent. Ges., Vienna **38**: 128–130, 145–147. [Lep.]

1990.—Kusnezov, N. Un caso de ergatandromorfismo en *Lasiophanes nigriventris* Spin. (Hymenoptera, Formicidae). Acta zool. lilloana, Tucuman **10** 1952: 153–159, 2 pls.

1991.—Kusnezov, N. El género *Wasmannia* en la Argentina (Hymenoptera, Formicidae). Acta zool. lilloana, Tucuman **10** 1952: 173–182, 8 figs.

1992.—Kusnezov, N. El género *Oligomyrmex* Mayr en la Argentina (Hymenoptera, Formicidae). Acta zool. lilloana, Tucuman **10** 1952: 183–187, 2 figs.

1993.—Kusnezov, N. *Atticonviva* Busck en la Argentina (Lepidoptera, Tineidae). Acta zool. lilloana, Tucuman **10** 1952: 281–282.

1994.—Kusnezov, N. El estado real del grupo *Dorymyrmex* Mayr (Hymenoptera, Formicidae). Acta zool. lilloana, Tucuman **10** 1952 : 427–448, 20 figs.

1995.—Kusnezov, N. Acerca de las hormigas simbióticas del género *Martia* Forel (Hymenoptera, Formicidae). Acta zool. lilloana, Tucuman **10** 1952 : 717–722.

1996.—Kusnezov, N. El género *Pogonomyrmex* Mayr (Hym., Formicidae). Acta zool. lilloana, Tucuman **11** 1951 : 227–333, 21 figs.

1997.—Kusnezov, N. *Myrmelachista* en la Patagonia (Hymenoptera, Formicidae). Acta zool. lilloana, Tucuman **11** 1951 : 353–365, 10 figs.

1998.—Kusnezov, N. *Descolemyrma ogloblini* género y especie nuevos de la tribu Attini (Hymenoptera, Formicidae). Acta zool. lilloana, Tucuman **11** 1951 : 459–465, 1 pl. 2 figs.

1999.—Kusnezov, N. El género *Pheidole* en la Argentina (Hymenoptera, Formicidae). Acta zool. lilloana, Tucuman **12** (1951) 1952 : 5–88.

2000.—Kusnezov, N. *Lasiophanes* Emery en la Patagonia. Acta zool. lilloana, Tucuman **12** (1951) 1952 : 89–100. [Hym.]

2001.—Kusnezov, N. El género *Camponotus* en la Argentina (Hymenoptera, Formicidae). Acta zool. lilloana, Tucuman **12** (1951) 1952 : 183–252, 3 pls.

2002.—Kusnezov, N. Tendencias evolutivas de las hormigas en la parte austral de Sud América. Folia univ., Cochabamba **6** : 86–209, 9 pls. 1 map. [Hym.]

2003.—Kusnezov, N. La fauna mirmecológica de Bolivia. Folia univ., Cochabamba **6** : 211–229. [Hym.]

2004.—Kusnezov, N. Die Ameisenfauna Argentiniens. Zool. Anz., Leipzig **150** : 15–25. [Hym.]

2005.—Kusnezov, N. & **Golbach,** R. Lista de las especies argentinas de la tribus Dacetini. Hymenoptera, Formicidae. Acta zool. lilloana, Tucuman **10** 1952 : 423–426.

2006.—Kutter, H. Bemerkenswerte Missbildung bei *Leptothorax acervorum* Latr. (Hym. Formicid.). Mitt. schweiz. ent. Ges., Berne **25** 1952 : 354, 1 fig.

2007.—Kuwana, Z. Reversal of phototropism and oviposition-habit of the adults of *Anthrenus verbasci* (Dermestidae). [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1950 : 78–81. [Col.]

2008.—Kuwayama, S. Insect fauna of Mt. Ishizuchi and Omogo valley, Iyo, Japan : the Neuroptera. Trans. Shikoku ent. Soc., Matsuyama **3** : 177–180, 1 fig.

2009.—Kuwayama, S. On some species of Psyllidae from Amakusa. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939 : 535–537, 5 figs. [Hem.]

2010.—Kuwayama, S. & **Nishijima,** Y. On the local difference between two types of the puparia of the rice leaf-miner, *Agromyza oryzae* Munakata, with special reference to the morphological characters and seasonal prevalence. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951 : 97–103. [Dipt.]

2011.—Kuyp, E. van der. Mosquitoes of Curaçao. Caribbean med. J., Port-of-Spain **25** : 37–39, 1 pl. [Dipt.]

2012.—Kuyp, E. van der. Studies on the fauna of Curaçao and other Caribbean Islands. Vol. IV : no. 20. Culicinae from the Netherlands Antilles and some other Caribbean localities. Natuurwet. Stud. Suriname, The Hague no. 8 : 144–148. [Dipt.]

2013.—[Kuznetsov, V. I.] Questions relating to the adaptation of Lepidoptera to new nutritional conditions. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952 : 166–181.

2014.—LaBerge, W. E. A note on a Phorid parasite of *Pheidole dentata* Mayr. J. Kansas ent. Soc., Manhattan **26** : 69. [Dipt., Hym.]

2015.—LaCasse, W. J. & **Yamaguti,** S. Mosquito fauna of Japan and Korea. 2nd edn. Kyoto, Honshu, Corps of Engineers, U.S. Army 1948 456 pp. 75 pls. 67 figs. [Dipt.] [Not seen.]

2016.—**LaCasse, W. J. & Yamaguti, S.** Mosquito fauna of Japan and Korea. 3rd edn. Kyoto, Honshu, Office of Surgeon, 8th U.S. Army [& Washington, D.C., Office of Surgeon General, U.S. Army] 1950 viii & 268, 7, 213 pp. 96 pls. 94 figs. 51 maps multigraph. [Dipt.]

2017.—**Ladisch, R. K. & McQue, B.** Methods of obtaining quinones from flour beetles. Science, New York **118**: 324–325, 1 fig. [Col.]

2018.—**Laever, E. de.** Un *Leucania* nouveau pour la faune française. Rev. franç. Lépid., Paris **13** (1952): 282–283, 1 pl.

2019.—**Laever, E. de.** *Caradrina* (*Paradrina*) *noctivaga* bonne espèce en France (Noctuidae). Rev. franç. Lépid., Paris **14**: 29–30, 1 fig.

2020.—**Lafon, J.** Recherches sur la faune aquatique littorale du Rhône à Lyon. Bull. mens. Soc. linn. Lyon **22**: 36–46, 3 figs.

2021.—**Lafon, J.** Note sur *Prosopistoma foliaceum* Fourc. (Ephemeroptera). Bull. Soc. zool. Fr., Paris **77**: 425–436, 2 pls. 4 figs.

2022.—**Lafrance, J.** Labour-saving devices used in studies on the onion maggot, *Hylemya antiqua* (Meig.). Rep. Quebec Soc. Prot. Pl. **32–33** (1950–1951) [1953]: 149–155, 13 figs. [Dipt.]

Lafrance, J. *see* Perron, Lafrance & Hudon.

2023.—**Laibach, E.** *Lepisma saccharina* L., das Silberfischchen. Z. hyg. Zool., Berlin **40** 1952: 321–370, 23 figs. [Thysanura].

Lal *see* Rattan Lal.

Lal Gupta, S. B. *see* Rattan Lal and Lal Gupta.

2024.—**Lallemand, V. & Synave, H.** Note sur *Cosmoscarta carinata* Stål (Fam. Cercopidae) (Hemiptera-Homoptera). Bull. Ann. Soc. ent. Belg., Brussels **89**: 115–116, 3 figs.

2025.—**Lallemand, V. & Synave, H.** Contribution à l'étude des Cercopidae de Nouvelle Guinée et des Philippines. Bull. Ann. Soc. ent. Belg., Brussels **89**: 190–198, 1 pl. [Hem.]

2026.—**Lallemand, V. & Synave, H.** Hemiptera Homoptera. Résult. sci. Explor. hydrobiol. Lac Tanganyika (1946–1947), Brussels **3** 1952 fasc. 3: 23–26.

Lambers *see* Hille Ris Lambers.

2027.—**Lane, J.** Neotropical Culicidae. Vols I & II. Univ. São Paulo 1112 pp. 1072 figs. 1 map. [Dipt.]

2028.—**Lane, J.** Neotropical *Mycetophila* (Diptera, Mycetophilidae). Dusenia, Curitiba **3** 1952: 421–434.

2029.—**Lane, J. E.** A note on the discovery of a rare bat flea in Ohio (Siphonaptera: Ischnopsyllidae). Ohio J. Sci., Columbus **53**: 178.

2030.—**Lane, M. C.** Some generic corrections in the Elateridae, IV (Coleoptera). Proc. ent. Soc. Washington **55**: 86–89.

2031.—**[Lange, A. B. & Razvyazkina, G. M.]** Morphology and development of the tobacco thrips. [In Russian.] Zool. Zhurn., Moscow **32**: 576–593, 28 figs. [Thysanopt.]

Lange, R. *see* Kloft & Lange.

2032.—**Langston, R. L. & Smith, O. J.** Notes on the Zygaenid genus *Harrisina* Packard, with special reference to *Harrisina metallica* Stretch. Ent. News, Lancaster, Pa. **64**: 253–255. [Lep.]

2033.—**Lapouge, G. V. de.** Coleoptera Adephaga. Fam. Carabidae Subfam. Carabinae. Genera Insect., Brussels **192E** pls. 2–10.

2034.—**La Rivers, I.** A new species and subspecies of *Ambrysus* from Guatemala (Hemiptera: Naucoridae). Pan-Pacif. Ent., San Francisco **29**: 138–142, 7 figs.

2035.—**La Rivers, I.** Two new Naucorid bugs of the genus *Ambrysus*. Proc. U.S. nat. Mus., Washington **103** no. 3311: 1–7, 4 figs. [Hem.]

2036.—**La Rivers, I.** The *Ambrysus* of Mexico (Hemiptera, Naucoridae). Univ. Kansas Sci. Bull., Lawrence **35**: 1279–1349, 8 pls.

2037.—**La Rivers, I.** New Gelastocorid and Naucorid records and miscellaneous notes, with a description of the new species, *Ambrysus amargosus* (Hemiptera: Naucoridae). Wasmann J. Biol., San Francisco **11**: 83–96, 1 fig.

La Rivers, I. *see* Usinger and La Rivers.

2038.—Larsen, E. B. Studies on the soil fauna of Skallingen. Qualitative and quantitative studies on alterations in the beetle fauna during five years' natural development of some sand and salt-marsh biotopes. Oikos, Copenhagen **3** (1951): 166–192, 12 figs. [Col.]

2039.—Last, H. R. A list of the Coleoptera of Jersey. Bull. Soc. jersiaise, Jersey **15** 1951: 347–367.

2040.—Last, H. R. Two new species of African *Philonthus* (Col., Staphylinidae). Ent. mon. Mag., London **89**: 114–115, 12 figs.

2041.—Lattin, G. de. Zur Evolution der westpaläarktischen Lepidopterenfauna (Teil I und II). Dechenianа, Bonn **105–106** (1951–1952) 1952: 115–164, 5 figs.

2042.—Lattin, G. de. Allelhäufigkeit und Rassenbildung bei *Anthrocera* (=*Zygaena*) *ephialtes* L. (Lep.). Verh. dtsch. zool. Ges., Leipzig **1952**: 452–460, 5 figs.

2043.—Laughlin, R. Absorption of water by the egg of the garden chafer, *Phyllopertha horticola* L. Nature, London **171**: 577. [Col.]

2044.—Laurence, B. R. The larva of *Ectaetia* (Dipt., Scatopsidae). Ent. mon. Mag., London **89**: 204–205, 6 figs.

2045.—Laurence, B. R. Some Diptera bred from cow dung. Ent. mon. Mag., London **89**: 281–283.

2046.—Laurence, B. R. On the feeding habits of *Clinocera* (*Wiedemannia*) *bistigma* Curtis (Diptera: Empididae). Proc. R. ent. Soc. London (A) **28**: 139–144, 11 figs.

Laurent, J. *see* Gaud & Laurent; Gaud, Laurent & Dupuy.

2047.—Laurentiaux, D. La problème des Blattes paléozoïques à ovipositeur externe. Ann. Paléont., Paris **37** 1951: 185–196, 2 pls. 4 figs. [Fossil.]

2048.—Laurentiaux, D. Découverte d'un rostre chez *Stenodictya lobata* Brgt. (Paléodictyoptère sténodictyide) et le problème des Protohémiptères. Bull. Soc. géol. Fr., Paris (6) **2** (1952): 233–247, 2 pls. 5 figs. [Fossil.]

2049.—Laurentiaux, D. Sur les insectes de l'ordre Synarmogoidea Handlirsch. C.R. Soc. géol. Fr., Paris **7** 1952: 122–123. [Fossil.]

2050.—Laurentiaux, D. Découverte d'un Homoptère Prosboloïde dans le Namurien belge. Publ. Ass. Etud. Paléont., Brussels **14** 1952: 1–16, 2 pls. 1 fig. [Fossil.]

2051.—Laurentiaux, D. & Laurentiaux-Vieira, F. Observations sur les Paléodictyoptères Breyeriidae. Bull. Soc. géol. Fr., Paris (6) **1** (1951) 1952: 585–596, 2 pls. 5 figs. [Fossil.]

Laurentiaux, D. *see* Ellenberger, Laurentiaux & Ricour; Laurentiaux-Vieira, Ricour & Laurentiaux.

2052.—Laurentiaux-Vieira, F., Ricour, J. & Laurentiaux, D. Un Protodonate du Trias de la Dent de Villard (Savoie). Bull. Soc. géol. Fr., Paris (6) **2**: 319–324, 1 pl. 2 figs. [Fossil.]

2053.—Lauro, V. Beobachtungen über das Vorkommen der Sägewespe *Eriocampa dorpatica* Kon. (Hym. Tenthredinidae) in Reposaari (St.). [In Finnish with German summary.] Ann. ent. fenn., Helsinki **19**: 129–131.

2054.—Lauterbach, G. Begattung und Geburt bei den Strepsipteren. Nach Untersuchungen an *Stylops*-weibchen aus der Sandbiene. Naturwissenschaften, Berlin **40**: 516. [Col.]

2055.—Laven, H. Genetical aspects offered by the *Culex pipiens* complex. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 293–296, 2 figs. [Dipt.]

2056.—Laven, H. Reziprok unterschiedliche Kreuzbarkeit von Stechmücken (Culicidae) und ihre Deutung als plasmatische Vererbung. Z. indukt. Abstamm.- u. VererbLehre, Berlin **85**: 118–136, 5 figs. [Dipt.]

2057.—Lavie, P. & Roth, M. Sur le thermopreferendum et la production de chaleur chez les abeilles. Physiol. comp., The Hague **3**: 57–62, 2 figs. [Hym.]

2058.—Lavoipierre, M. M. J. & **Reynaud,** P. A simple way of counting mosquito eggs. Ann. trop. Med. Parasit., Liverpool **47**: 307–308, 1 fig. [Dipt.]

2059.—Lawson, F. A. Structural features of cockroach egg capsules. III. The ootheca of *Euryotis floridana* (Orthoptera: Blattidae). J. Tenn. Acad. Sci., Nashville **28**: 28–33, 1 pl.

2060.—Lawson, J. W. H. The early stages of some species of biting midges. Summ. Theses Univ. Glasgow **1949–50** 1950: 54–55. [Dipt.]

Layne, jr., G. W. *see* Rings & Layne.

2061.—Lea, A. Studies on the behaviour of adult brown locusts in the Karoo. Sci. Bull. Dep. Agric. S. Afr., Pretoria no. 344 (Locust Res. Ser. no. 15): 1–21, 1 fig. 1 map. [Orth.]

2062.—Le Berre, J.-R. Contributions à l'étude biologique du criquet migrateur des landes (*Locusta migratoria gallica* Remaudière). Bull. Biol., Paris **87**: 227–273, 10 figs. [Orth.]

2063.—Le Berre, J.-R. Déterminisme du vol de l'insecte. Rev. Zool. agric., Talence **52**: 90–96.

Le Berre, J.-R. *see* Grison & Le Berre.

2064.—Lebis, E. Revision des Canthoninae de Madagascar (Col. Scarabaeidae). Mém. Inst. sci. Madagascar, Tananarive (E) **3**: 107–252, 127 figs.

2065.—Le Calvez, J. Carte cytologique des chromosomes géants des glandes salivaires de *Drosophila immigrans* Sturt. Chromosoma, Berlin **6**: 170–174, 1 fldg. pl. 1 fig. [Dipt.]

2066.—Le Charles, L. Contribution à l'étude des Zygènes *gallicomana-erebus*. Rev. franç. Lépid., Paris **14**: 13–16, 1 pl.

2067.—Le Charles, L. & **Varin,** G. Etude et répartition des races d'*Hipparchia statilinus* Hfn. en France. Rev. franç. Lépid., Paris **13** (1952): 287–297, 5 pls.

2068.—Leclercq, J. Notes détachées sur les Hyménoptères Aculéates de Belgique. Bull. Ann. Soc. ent. Belg., Brussels **89**: 77–84, 1 map, 199–202, 245–250, 300–304.

2069.—Leclercq, J. Sur les Ichneumonides (Hymenoptera) de la Belgique et des pays voisins (1–10). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 38: 1–11.

2070.—Leclercq, J. Un cas extraordinaire de gynandromorphisme chez *Halictus sexcinctus* (Hym. Apidae). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 46: 1–4, 3 figs.

2071.—Leclercq, J. Proctotrupoidea (Serphoidea) récoltés en Belgique. Lambillionea, Brussels **52** 1952: 71–72. [Hym.]

2072.—Leclercq, J. Trigonalidae, Aulacidae, Evaniidae, Stephanidae et Agriotypidae de la faune franco-belge. Lambillionea, Brussels **53**: 1–2. [Hym.]

2073.—Leclercq, J. Sphecinae de Madagascar (Hym. Sphecidae). Rev. Zool. Bot. afr., Brussels **48**: 211–212.

Leclercq, J. *see* Delahu & Leclercq.

2074—Leclercq, M. Diptères récoltés à la Heid des Gattes (Aywaille). Bull. Ann. Soc. ent. Belg., Brussels **89**: 305–308.

2075.—Lecomte, C. Extension de la zone d'habitat du *Callidium aeneum* Deg. (Col. Cerambycidae). Bull. Soc. ent. Fr., Paris **58**: 63–64.

2076.—Ledoux, A. Recherches préliminaires sur quelques points de la biologie d'*Ondontomachus assiniensis* Latr. (Hym. Formicoidea). Ann. Sci. nat., Paris Zool. (11) **14** (1952): 231–248, 8 figs.

2077.—Lee, D. J. & **Reye,** E. J. Australasian Ceratopogonidae (Diptera, Nematocera). Part VI. Australian species of *Culicoides*. Proc. Linn. Soc. N.S.W., Sydney **77**: 369–394, 93 figs.

Lee, P. *see* Senior White, Lewis & Lee.

2078.—Leefmans, S. On some insects in *Typha angustifolia*. Tijdschr. PlZiekt., Wageningen **59**: 201–204, 1 pl. [Lep.]

2079.—Leefmans, S. Practical application of insect phenology. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 190–199, 10 figs.

Leeuwen *see* Docters van Leeuwen.

2080.—Lefevre, jr. G., **Ratty,** jr., F. J. & **Hanks,** G. D. Frequency of Notch mutations induced in normal, duplicated and inverted X-chromosomes of *Drosophila melanogaster*. Genetics, Lancaster, Pa. **38**: 345–359, 2 figs. [Dipt.]

2081.—Legay, J. M. Sur une méthode d'étude quantitative de la prise de nourriture chez le ver à soie. C.R. Acad. Sci., Paris **236**: 326–328, 2 figs. [Lep.]

Legay, J.-M. *see* d'Aguilar, Legay & Vago.

2082.—Legros, C. Contribution à l'étude de la zone d'inondation du Niger (mission G. Remaudière, 1950) VII. Coléoptères, Haliplidae, Dytiscidae, Hydrophilidae, Spercheidae. Bull. Inst. franç. Afr. noire, Dakar **15**: 1561–1565.

Leite *see* Costa Leite.

2083.—Leleup, N. Le laboratoire souterrain de Moulis et considérations sur l'écologie des Coléoptères reliques des Pyrénées. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 5: 1–16, 1 col. pl.

2084.—Le Marchand, S. Quel est le véritable nom de *Neurothaumasia burdigalensis* Le Marchand (Tineidae) avec description d'une nouvelle espèce de *Tinea*. Rev. franç. Lépid., Paris **14**: 41–45, 2 figs.

2085.—Le Marchand, S. Respect à la loi. Rev. franç. Lépid., Paris **14**: 66–69.

2086.—Le Masne, G. Classification et caractéristiques des principaux types de groupements sociaux réalisés chez les invertébrés. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952: 19–70, 2 pls.

2087.—Le Masne, G. Observations sur la biologie de la fourmi *Ponera eduardi* Forel. La descendance des ouvrières fécondées par des mâles ergatoïdes. C.R. Acad. Sci., Paris **236**: 1096–1098. [Hym.]

2088.—Lemonde, A. & **Bernard,** B. Aspects nutritifs des larves de *Stegobium paniceum* L. (Anobiidae) et d'*Oryzaephilus surinamensis* L. (Cucujidae). Nat. canad., Quebec **80**: 125–142. [Col.]

2089.—Lempke, B. J. Trekvlinders in 1952. Ent. Ber., Amsterdam **14**: 316–321, 339–345, 4 figs. [Lep.]

2090.—Lempke, B. J. Catalogus der nederlandse Macrolepidoptera (eerste supplement). Tijdschr. Ent., Amsterdam **96**: 239–305, 3 pls.

2091.—Lems, K. Van nymph tot libelle. Levende Nat., Amsterdam **56**: 75–79, 4 figs. [Odon.]

2092.—Lengerken, H. von. Die Brutbiologie von *Copris hispanus* L. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 117–124, 5 figs. [Col.]

2093.—Lengerken, H. v. Zur Brutbiologie der Coprinen-Gattung *Deltochilum* (Coleopt.). Wiss. Z. Univ. Halle **2**: 769–772, 7 figs.

2094.—Lengersdorf, F. Neue Trauermücken aus den Alpen (Ins., Diptera). Ber. naturw.-med. Ver. Innsbruck **50** (1950–1953): 167–168, 4 figs.

2095.—Lengersdorf, F. & **Mannheims,** B. Das kleine Fliegenbuch von heimischen Fliegen und Mücken. Munich, Verlag Dr. E. Reitter 1951 83 pp. 61 figs. [Dipt.]

2096.—Lent, H. Um novo Hemíptero hematófago da Venezuela (Reduviidae, Triatominae). Rev. brasil. Biol., Rio de Janeiro **13**: 169–172, 3 figs.

2097.—Lent, H. Nova espécie de *Triatoma* da região oriental (Hemiptera, Reduviidae). Rev. brasil. Biol., Rio de Janeiro **13**: 315–319, 3 figs.

Leonard, E. C. *see* Allard & Leonard.

Leopold, R. S. *see* DeCoursey, Webster, Taylor, Leopold & Kathan.

2098.—Lepesme, P. Un Obriini nouveau d'Afrique orientale. Ann. Mag. nat. Hist., London (12) **6**: 877–878. [Col.]

2099.—Lepesme, P. Coléoptères Cérambycides (Longicornes) de Côte d'Ivoire. Cat. Inst. franç. Afr. noire, Dakar **11**: 1–103, 40 pls.

2100.—Lepesme, P. Coleoptera Cerambycidae de l'Angola obtenus par le Musée de Dundo. Publ. cult. Cia Diamant. Angola, Lisbon no. 16: 51–60, 1 pl.

2101.—**Lepesme,** P. & **Breuning,** S. Coléoptères Cérambycides récoltés par P. L. Dekeyser, P. Lepesme et A. Villiers dans l'île de Fernando-Poo. Bull. Inst. franç. Afr. noire, Dakar **15** : 507–518.

2102.—**Lepesme,** P. & **Breuning,** S. Coléoptères Cérambycides récoltés dans le Pacifique par P. Lepesme (mars-avril 1950). Bull. Mus. Hist. nat., Paris (2) **25** : 301–306.

2103.—**Lepesme,** P. & **Breuning,** S. Lamiaires nouveaux de Côte d'Ivoire (Col. Cerambycidae). Bull. Soc. ent. France, Paris **58** : 98–104, 7 figs.

2104.—**Lepesme,** P. & **Breuning,** S. La réserve naturelle intégrale du Mt Nimba, fascicule 1. IV. Coléoptères Cerambycidae. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 49–66, 7 figs.

2105.—**Lepesme,** P. & **Paulian,** R. Remarques sur le peuplement entomologique des palmiers. C.R. Soc. Biogéogr., Paris **24** 1947 : 37–40.

2106.—**Lépine,** P., **Vago,** C. & **Croissant,** O. Mise en évidence du microscope électronique du virus de la polyèdrie de *Plusia gamma* L. (Lepidoptera). Ann. Inst. Pasteur, Paris **85** : 170–173, 1 pl.

2107.—**Leppik,** E. E. The ability of insects to distinguish number. Amer. Nat., Lancaster, Pa. **87** : 229–236.

2108.—**Le Quesne,** W. J. The dragonflies of Jersey. Bull. Soc. jersiaise, Jersey **14** 1946 : 213–216. [Odon.]

2109.—**Le Quesne,** W. L. The caddis-flies of Jersey. Bull. Soc. jersiaise, Jersey **14** 1947 : 324–328. [Trichopt.]

2110.—**Le Quesne,** W. L. Lacewings, mayflies and allied orders in Jersey. Bull. Soc. jersiaise, Jersey **14** 1948 : 427–430. [Neur., Ephem., etc.]

Lerma *see* De Lerma.

2111.—**Lesse,** H. de. Sur la validité spécifique de *Pararge xiphia* F. et *xiphioides* Stgr. (Lep. Satyridae). Bull. Soc. ent. Fr., Paris **57** (1952) : 152–155, 3 figs.

2112.—**Lesse,** H. de Révision des *Neohipparchia* (Lep. Satyridae) d'Afrique du Nord. Bull. Soc. Sci. nat. Maroc, Rabat **32** (1952) : 91–105.

2113.—**Lesse,** H. de. Quelques formules chromosomiques chez les Lycaenidae (Lépidoptères, Rhopalocères). C.R. Acad. Sci., Paris **235** 1952 : 1692–1694, 1 fig.

2114.—**Lesse,** H. de. Formules chromosomiques nouvelles du genre *Erebia* (Lepid. Rhopal.) et séparation d'une espèce méconnue. C.R. Acad. Sci., Paris **236** : 630–632, 7 figs.

2115.—**Lesse,** H. de. Formules chromosomiques nouvelles chez les Lycaenidae (Lépid. Rhopal). C.R. Acad. Sci., Paris **237** : 1781–1783.

2116.—**Lesse,** H. de. Contribution à l'étude du genre *Erebia* (10e note). Nouvelles indications sur la répartition d'*Erebia hispania* Btlr. et *E. cassioides* (R. et Hhnw.) aux Pyrénées. Lambillionea, Brussels **53** : 5–11, 1 map. [Lep.]

2117.—**Lesse,** H. de. Observations sur la ponte de quelques *Erebia*. Lambillionea, Brussels **53** : 45–47. [Lep.]

2118.—**Lesse,** H. de. Formules chromosomiques de *Boloria aquilonaris* Stichel, *B. pales* D. et Schiff., *B. napaea* Hoffm. et quelques autres Lépidoptères Rhopalocères. Rev. franç. Lépid., Paris **14** : 24–26, 1 pl. 5 figs.

2119.—**Leston,** D. Notes on the Ethiopian Pentatomidae IV. A new genus and species from the Cape Province. Ann. S. Afr. Mus., Cape Town **41** : 46–47, 1 fig. [Hem.]

2120.—**Leston,** D. Notes on the Ethiopian Pentatomoidea X. Some specimens from southern Africa in the South African Museum, with a note on the remarkable pygophore of *Elvisura irrorata* Spinola and description of a new species of *Piezodorus* Fieber. Ann. S. Afr. Mus., Cape Town **41** : 48–60, 17 figs. [Hem.]

2121.—**Leston,** D. The suprageneric nomenclature of the British Pentatomoidea (Hemiptera). Ent. Gaz., London **4** : 13–25.

2122.—Leston, D. A note on oligomery in Lygaeidae (Hem.). Ent. Gaz., London **4**: 133–134.

2123.—Leston, D. The eggs of Tingitidae (Hem.), especially *Acalypta parvula* (Fallén). Ent. mon. Mag., London **89**: 132–134, 1 fig.

2124.—Leston, D. Notes on the Ethiopian Pentatomoidea (Hem.): XIII. On a waxy secretion by Halyini (Pentatomidae). Ent. mon. Mag., London **89**: 147.

2125.—Leston, D. Notes on the Ethiopian Pentatomoidea (Hem.): XIV, on a new, infra-rectal, organ in *Boerias* Kirkaldy (Pentatomidae). Entomologist, London **86**: 152–155, 4 figs.

2126.—Leston, D. On the wing-venation, male genitalia and spermatheca of *Podops inuncta* (F.), with a note on the diagnosis of the subfamily Podopinae Dallas (Hem., Pentatomidae). J. Soc. Brit. Ent., Bournemouth **4**: 129–135, 10 figs.

2127.—Leston, D. Notes on the Ethiopian Pentatomoidea (Hemiptera): XVI, an Acanthosomid from Angola, with remarks upon the status and morphology of Acanthosomidae Stål. Publ. cult. Cia Diamant. Angola, Lisbon no. 16: 123–132, 11 figs.

2128.—Leston, D. Phloeidae Dallas: systematics and morphology, with remarks on the phylogeny of Pentatomoidea Leach and upon the position of *Serbana* Distant (Hemiptera). Rev. brasil. Biol., Rio de Janeiro **13**: 121–140, 23 figs.

2129.—Leston, D. Notes on the Ethiopian Pentatomidae (Hem.): vii. A review of *Gynenica* Dallas 1851. Rev. Zool. Bot. afr., Brussels **48**: 179–195, 20 figs.

2130.—Leston, D. & Gardner, A. E. Corixidae (Hemiptera) at mercury-vapour light: some records from Surrey, England. Ent. Gaz., London **4**: 269–272.

2131.—Levenbook, L. The variation in phosphorus compounds during metamorphosis of the blow-fly, *Calliphora erythrocephala* Meig. J. cell. comp. Physiol., Philadelphia **41**: 313–334, 3 figs. [Dipt.]

2132.—Leví-Castillo, R. Los mosquitos del género *Haemagogus*-Williston, 1896 en América del Sur. Cuenca, Ecuador, Edit. "Don Bosco" 1951: 1–77, 28 figs. [Dipt.]

2133.—Leví-Castillo, R. Observations on the subgenus *Phalangomyia* of the genus *Culex* in Ecuador with description of a new species (Diptera: Culicidae). Pacif. Sci., Honolulu **7**: 187–192, 5 figs.

2134.—Leví-Castillo, R. A new species of *Culex* from Ecuador (Diptera, Culicidae). Proc. ent. Soc. Wash. **55**: 161–163, 3 figs.

2135.—Leví-Castillo, R. Dos especies nuevas de mosquitos ecuatorianos (Diptera-Culicidae). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 1: 14–18, 2 pls.

2136.—Leví-Castillo, R. A note on the systematic status of the genus *Haemagogus*, Williston 1896 (Diptera-Culicidae). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 1: 19–25.

2137.—Leví-Castillo, R. Lista provisional y distribución de los mosquitos Culicinos en el Ecuador. Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 1: 34–45. [Dipt.]

2138.—Leví Castillo, R. Nota sobre cuatro especies del género *Haemagogus*, Williston 1896 que son propias de la América Central (Diptera-Culicidae). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 2: 15–24, 4 pls.

2139.—Leví-Castillo, R. Notas adicionales sobre la terminalia de *Haemagogus* (*Haemagogus*) *albomaculatus*, Theobald 1903 (Diptera-Culicidae). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 2: 37–38, 2 pls.

2140.—Leví-Castillo, R. Notas sobre los mosquitos de la República del Ecuador. Parte I. Introducción y descripción geográfico—ecológica, distribución sistemática de los moquitos ecuatorianos, consideraciones taxonómicas. Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 3: 15–28. [Dipt.]

2141.—**Leví-Castillo,** R. Una nueva especie de *Culex* procedente de la Provincia de Los Ríos, Ecuador: *Culex* (*Carrollia*) *babahoyensis* n. sp. (Diptera-Culicidae). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 3: 91–94, 2 pls.

2142.—**Leví-Castillo,** R. Notas adicionales sobre la especie *Sabathes* (*Sabethoides*) *chloropterus* Humboldt 1820, encontrado en la costa ecuatoriana (Diptera-Culicidae). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 3: 95–100, 2 pls.

2143.—**Leví-Castillo,** R. *Aedes garciai* n. sp., un Aedino nuevo para la fauna ecuatoriana.—*Lanesia*, nuevo subgénero de *Aedes*. Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 3: 101–106, 3 pls. [Dipt.]

Levine, R. P. *see* Ives, Fenton, Yost & Levine.

Levitan, M. *see* Cochran, Grayson & Levitan.

2144.—**Lewis,** D. J. The *Stegomyia* mosquitoes of the Anglo-Egyptian Sudan. Ann. trop. Med. Parasit., Liverpool **47**: 51–61, 7 figs. [Dipt.]

2145.—**Lewis,** D. J. The Tabanidae of the Anglo-Egyptian Sudan. Bull. ent. Res., London **44**: 175–216, 28 figs. [Dipt.]

2146.—**Lewis,** D. J. Simuliidae in the Anglo-Egyptian Sudan. Rev. Zool. Bot. afr., Brussels **48**: 269–286, 17 figs. [Dipt.]

Lewis, D. J. *see* Kirk & Lewis.

Lewis, G. *see* Senior White, Lewis & Lee.

2147.—**Lewis,** S. E. Acetylcholine in blowflies. Nature, London **172**: 1004–1005, 1 fig. [Dipt.]

2148.—**L'Hélias,** C. L'organe leucopoiétique des Tenthrédes. Bull. Soc. zool. Fr., Paris **78**: 76–83, 4 figs. [Hym.]

2149.—**L'Hélias,** C. Rôle des corpora allata dans le métabolisme des glucides, de l'azote et des lipides chez le phasme *Dixippus morosus*. C.R. Acad. Sci., Paris **236**: 2164–2166. [Orth.]

2150.—**L'Hélias,** C. Etude comparée de l'azote total et de l'azote non proteinique chez le phasme *Dixippus morosus* après ablation des corpora allata. C.R. Acad. Sci., Paris **236**: 2439–2441. [Orth.]

2151.—**Lhomme,** L. Catalogue des Lépidoptères de France et de Belgique. Le Carriol, the author. Vol. 2 Part II [? 1947] fasc. 4: 489–648, 1948 fasc. 5: 649–808, fasc. 6 [? 1950]: 809–904 [? 1952]: 905–952.

2152.—**Lhoste,** J. Description de quelques Scydmaenidae (Coleoptera) vénézuéliens. Acta biol. venezuel., Caracas **1**: 115–132, 13 figs.

2153.—**Lhoste,** J. Données histophysiologiques sur les cellules neurosécrétrices céphaliques et le complexe rétro-cérébral de *Forficula auricularia*. Arch. Zool. exp. gén., Paris Notes et Rev. **89**: 169–183, 34 figs. [Dermapt.]

2154.—**Liebermann,** J. Dos especies de grillos. Plagas temporarias en los cultivos de cereales tempranos en Entre Rios. Alm. Minist. agric., Buenos Aires **26–27** 1951: 165–168, 1 fig. [Orth.]

2155.—**Liebermann,** J. El alotipo hembra de *Trybliophorus modestus* Bruner (Orth. Acrid. Trybliophorini) con la descripción de un órgano desconocido en su séptimo esternito abdominal. An. Soc. Cient. argent., Buenos Aires **156**: 34–49, 5 figs.

2156.—**Liebermann,** J. La valiosa contribución del Dr. Herman Lent a la entomología de Chile. Rev. univ., Santiago **32** 1947: 113–116.

2157.—**Lieftinck,** M. A. Notes on some Odonata from Panaitan Island, Sunda Strait (West Java). Idea, Bogor **9**: 51–56, 2 maps. Also as Publ. Org. sci. Res. Indonesia, Djakarta no. 36 [? 1952]: 8–13, 2 maps.

2158.—**Lieftinck,** M. A. Revision of the Australasian species of *Synthemis* Selys (Odon., Corduliidae) with descriptions of four new species and a key to their identification. Idea, Bogor **9**: 70–88, 14 figs. Also as Publ. Org. sci. Res. Indonesia, Djakarta no. 38 [? 1952]: 3–21, 14 figs.

2159.—**Lieftinck,** M. A. Notes on some dragonflies (Odonata) of the Cook Islands. Proc. Hawaii. ent. Soc., Honolulu **15** : 45–49.

2160.—**Lieftinck,** M. A. Biological and ecological observations on a bark haunting Mantid in Java (Orthop., Mantoidea). Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 125–134, 2 pls. 3 figs.

2161.—**Lieftinck,** M. A. The larval characters of the Protoneuridae (Odon.) with special reference to the genus *Selysioneura* Förster, and with notes on other Indo-Australian genera. Treubia, Bogor **21** : 641–684, 48 figs.

2162.—**Lieftinck,** M. A. Revisional notes on the genera *Diplacina* Brauer and *Huonia* Förster (Odon.). Treubia, Bogor **22** : 153–216, 23 figs.

2163.—**Lieftinck,** M. A. Additions to the Odonate fauna of the Indo-Australian Archipelago. Treubia, Bogor **22** : 233–269, 11 figs.

2164.—**Lieftinck,** M. A. New dragonflies (Odonata) from Borneo, with notes on their habits and larvae. Treubia, Bogor **22** : 381–406, 7 figs.

2165.—**Liem Swie Liong.** Termite trapping. Ent. Ber., Amsterdam **14** : 220–222, 1 fig. [Isopt.]

2166.—**Lima,** M. M. Do diagnóstico diferencial entre o *Anopheles* (*Kerteszia*) *cruzii* e o *Anopheles* (*Kerteszia*) *homunculus* na fase larvária. Rev. brasil. Malariol., Rio de Janeiro **4** 1952 : 401–404, 4 col. pls. [Dipt.]

Lima *see* Costa Lima.

Lin, C. S. *see* Evans, Lin & Yoshimoto.

2167.—**Lindauer,** M. Bienentänze in der Schwarmtraube. Naturwissenschaften, Berlin **40** : 379–385, 6 figs. [Hym.]

2168.—**Lindauer,** M. Zur Arbeitsteilung im Bienenstaat. Verh. dtsch. zool. Ges., Leipzig **1952** : 149–150. [Hym.]

Lindauer, M. *see* Frisch, Heran & Lindauer.

2169.—**Lindberg,** H. Zweiter Beitrag zur Kenntnis der Käferfauna der Kanarischen Inseln. Comment. biol., Helsingfors **13** no. 12 : 1–18, 18 figs. [Col.]

2170.—**Lindberg,** H. & **Saris,** N.-E. Insektfaunan i Pisavaara naturpark (Finland, Prov. Ob). Acta Soc. Fauna Flora fenn., Helsinki **69** 1952 no.2 : 1–82, 4 pls. 1 map.

2171—**Linder,** A. 3. Beitrag zur Coleopteren-Fauna der Schweiz. Mitt. schweiz. ent. Ges., Berne **26** : 63–71.

2172.—**Lindner,** E. Die Fliegen der palaearktischen Region. Stuttgart, 1952–1953. Tipulidae **15** 1952 : 65–112, 1 pl. 33 figs. ; Phoridae **33** 1952 : 273–320, 1 pl. 15 figs. ; Tipulidae **15** : 113–136, 18 figs. [Dipt.]. *See* **Mannheims, Schmitz.**

2173.—**Lindner,** E. Ostafrikanische Stratiomyiiden (Dipt.) (Ergebnisse der Deutschen Zoologischen Ostafrika - Expedition 1951–52, Gruppe Lindner-Stuttgart, Nr. 12). Jh. Ver. vaterl. Naturk. Württemb., Stuttgart **108** : 18–29.

2174.—**Lindqvist,** E. Ueber *Pristiphora staudingeri* Ruthe und nahverwandte Arten (Hym. Tenthred.). Opusc. ent., Lund **18** : 220–224, 9 figs.

2175.—**Lindroth,** C. H. Fennoskandiens Carabider. Ett litet supplement. Opusc. ent., Lund **18** : 17–21. [Col.]

2176.—**Lindroth,** C. H. Kirby's types of North American Carabidae (Coleoptera). Proc. R. ent. Soc. London (B) **22** : 167–177, 8 figs.

2177.—**Lindroth,** C. H. Skalbaggar. Coleoptera. Sandjägare och jordlöpare Fam. Carabidae. Svensk Insektfauna, Stockholm **9** 1942 : 260 pp. 130 figs.

2178.—**Lindroth,** C. H. Influence of pleistocene climate changes on the insect fauna of Northern Europe. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 145–153, 9 figs.

2179.—**Linnavuori,** R. On some new or interesting leafhopper species of the family Cicadellidae. Ann. ent. fenn., Helsinki **19** : 56–63, 3 figs. [Hem.]

2180.—**Linnavuori,** R. Hemipterological studies. Ann. ent. fenn., Helsinki **19** : 107–118, 6 figs.

2181.—**Linnavuori, R.** Contributions to the Hemipterous fauna of Palestine II. Ann. ent. fenn., Helsinki **19** : 119–124, 1 fig.

2182.—**Linnavuori, R.** Studies on the ecology and phenology of the leafhoppers (Homoptera) of Raisio (S.W. Finland). Ann. zool. Soc. zool. bot. Vanamo, Helsinki **14** 1952 no. 6 : 1–32, 5 figs.

Linsley, E. C. *see* Mayr, Linsley & Usinger.

2183.—**Linssen, E. F.** Entomological photography in practice. A guide book for photographers and naturalists on the photographic illustration of close-up natural history subjects. London, Fountain Press 112 pp. 12 pls. 7 figs.

Liong *see* Liem Swie Liong.

2184.—**Lipp, C.** Ueber Kernwachstum, Endomitosen und Funktionszyklen in den trichogenen Zellen von *Corixa punctata* Illig. Chromosoma, Berlin **5** : 454–486, 25 figs. [Hem.]

2185.—**Lipp, C.** Der Formwechsel der Chromosomen in Mitose, Endomitose und Pseudoendomitose bei *Corixa punctata*. Naturwissenschaften, Berlin **40** : 27–28, 1 fig. [Hem.]

Lips, M. *see* Mattingly & Lips.

2186.—**Lisle, M. de.** Description d'un Cétonide nouveau (Col. Scarabaeidae). Bull. Soc. ent. Fr., Paris **58** : 57–59, 4 figs.

2187.—**Lith, J. P. van.** Opmerkingen over enige Chrysididae. Ent. Ber., Amsterdam **14** : 225–227. [Hym.]

2188.—**Lith, J. P. van.** De nederlandse metselwespen. Enkele aanvullende gegevens over verspreiding en biologie. Levende Nat., Amsterdam **56** : 231–233. [Hym.]

2189.—**Liu, G. K. C.** Cicadas in Chinese culture (including the silverfish). Osiris, Bruges **9** 1950 : 275–396, 18 figs.

2190.—**Liu, G. K. C.** The silkworm and Chinese culture. Osiris, Bruges **10** 1952 : 129–194, 1 pl.

2191.—**Löberbauer, R.** Die Variationsbreite von *Hydriomena ruberata* Frr. Z. wien. ent. Ges., Vienna **38** : 19–21, 1 pl. [Lep.]

Lockard, D. *see* Ristich & Lockard.

Locker, B. *see* Jellison, Locker & Bacon.

2192.—**Loconti, J. D. & Roth, L. M.** Composition of the odorous secretion of *Tribolium castaneum*. Ann. ent. Soc. Amer., Columbus **46** : 281–289, 7 figs. [Col.]

2193.—**Lodos, N.** *Eurygaster integriceps* Put. Sünenin biyoloji ve mücadelesi. Türk Yüks. Zir. Mühend. Birl. Neşr., Ankara no. 18 : 1–57, 21 figs. 2 maps. [Hem.]

2194.—**Long, D. B.** Effects of population density on larvae of Lepidoptera. Trans. R. ent. Soc. London **104** : 543–584, 6 pls. (2 col.) 14 figs.

2195.—**Long, E. J.** Ecological notes on *Thanatophilus americana* L. Trans. Illinois Acad. Sci., Springfield **43** 1950 : 249–252. [Col.]

2196.—**Longfield, C.** Oviposition in dragonflies (Odonata). Ent. mon. Mag., London **89** : 97.

2197.—**Longfield, C.** The *Atoconeura* problem (Odon., Libellulidae). Entomologist, London **86** : 42–49, 1 pl.

2198.—**Lord, K. A. & Potter, C.** Hydrolysis of esters by extracts of insects. Nature, London **172** : 679–681.

2199.—**Loritz, J.** Remarques sur *Colias palaeno* L. race européenne Ochs. et sa variabilité dans les Alpes-Maritimes (contd.). Bull. Soc. ent. Mulhouse **1953** : 5–8. [Lep.]

2200.—**Lorkovic, Z.** L'accouplement artificiel chez les Lépidoptères et son application dans les recherches sur la fonction de l'appareil genital des insectes. Physiol. comp., The Hague **3** : 313–320, 3 figs.

2201.—**Louwerens, C. J.** The Oriental species of *Colpodes* Mael. (Col. Carabidae). Treubia, Bogor **22** : 75–151, 15 figs.

2202.—**Louwerens, C. J.** New Carabidae from the Malay Archipelago. Zool. Meded., Leiden **32** : 87–95, 1 pl. [Col.]

Lovell, J. B. *see* Chadwick, Lovell & Egner.

2203.—Lower, H. F. Some Lauxaniidae (Diptera) in Queensland collections. Mem. Qd Mus., Brisbane **13** : 71–79, 6 figs.

2204.—Lower, H. F. A new species of *Austroasca* Lower (Cicadellidae, Homoptera). Proc. Linn. Soc. N.S.W., Sydney **78** : 33–34, 8 figs.

Lower, W. *see* Busnel & Lower.

2205.—Lowndes, D. G. More on butterflies from Nepal. J. Bombay nat. Hist. Soc. **51** : 756–758. [Lep.]

2206.—[Lozina-Lozinskii, L. K.] Wing of butterfly as a receptor of infra-red radiation. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **93** : 369–372. [Lep.]

2207.—Lu, Kiao-hung & **Bodine,** J. H. Changes in the distribution of phosphorus in the developing grasshopper (*Melanoplus differentialis*) embryo. Physiol. Zool., Chicago **26** : 242–254, 7 figs. [Orth.]

Lucca *see* De Lucca.

2208.—Lucena, D. T. de. Flebotomos do Nordeste. Morfologia de algumas espécies e sua distribuição geográfica. Pap. Dep. Zool. Sec. Agric. S. Paulo **11** : 89–107, 6 figs. [Dipt.]

2209.—Lüdicke, M. Ueber die Aufnahme von radioaktivem, sekundärem Natriumphosphat bei *Lucanus cervus* L. Z. vergl. Physiol., Berlin **34** 1952 : 508–524, 11 figs. [Col.]

2210.—Lüdtke, H. Retinomotorik und Adaptationsvorgänge beim Rückenschwimmer (*Notonecta glauca* L.). Rev. suisse Zool., Geneva **60** : 528–543, 6 figs. [Hem.]

2211.—Lüdtke, H. Retinomotorik im Insektenauge. Verh. dtsch. zool. Ges., Leipzig **1951** 1952 : 186–191, 7 figs. [Hem.]

2212.—Lüdtke, H. Retinomotorik und Adaptationsvorgänge im Auge des Rückenschwimmers (*Notonecta glauca* L.). Z. vergl. Physiol., Berlin **35** : 129–152, 13 figs. [Hem.]

2213.—Lüdtke, H. & **Hopp,** H. Ueber Gewebeschäden bei *Pediculus vestimenti* N. nach Einwirkung chlorierter Kohlenwasserstoffe (DDT, HCC, Matacid). Naturwissenschaften, Berlin **40** : 346–347, 1 fig. [Anopl.]

2214.—Ludwig, D. Cytochrome oxidase activity during diapause and metamorphosis of the Japanese beetle (*Popillia japonica* Newman). J. gen. Physiol., Baltimore **36** : 751–757, 1 fig. [Col.]

2215.—Ludwig, D. The activity of cytochrome oxidase during diapause and metamorphosis of the Japanese beetle (*Popillia japonica* Newman). Trans. New York Acad. Sci., Baltimore (2) **15** : 243–244. [Col.]

2216.—Ludwig, D. & **Bartolotta,** A. J. The effect of DDT on the composition of larval blood of the Japanese beetle (*Popillia japonica* Newman). J. New York ent. Soc. **61** : 119–125. [Col.]

2217.—Ludwig, D. & **Wugmeister,** M. Effects of starvation on the blood of Japanese beetle (*Popillia japonica* Newman) larvae. Physiol. Zool., Chicago **26** : 254–259, 1 fig. [Col.]

Ludwig, W. *see* Janzer & Ludwig.

2218.—Lüers, H. Untersuchung zur Frage der Mutagenität des Kontaktinsektizids DDT an *Drosophila melanogaster*. Naturwissenschaften, Berlin **40** : 293. [Dipt.]

Lüers, H. *see* Lüers, Köpf & Lüers.

2219.—Lüers, T., **Köpf,** H. & **Lüers,** H. Ueber Nervenzellveränderungen bei *Drosophila* nach E 605–Vergiftung. Biol. Zbl., Leipzig **72** : 478–493, 16 figs. [Dipt.]

2220.—Luginbill, sr., P. & **Painter,** R. H. May beetles of the United States and Canada. Tech. Bull. U.S. Dep. Agric., Washington, D.C. no. 1060: 1–102, 78 pls. 91 figs. [Col.]

2221.—Lull, R. S. Triassic life of the Connecticut valley. Bull. Conn. geol. nat. Hist. Surv., Hartford no. 81 : 1–336, 12 pls. 167 figs. [Fossil Ins. pp. 34–46.]

2222.—Lumsden, W. H. R. & **Someren,** Mrs. E. C. C. van. Records of *Culex* species (Diptera : Culicidae) from West Nile District, Uganda, with notes on their behaviour. Proc. R. ent. Soc. London (B) **22** : 19–22.

2223.—Luna de Carvalho, E. *Paussus ricardo-jorgei* n. sp., um novo Paussídeo do grupo *wellmanni*, de Angola. Arq. Mus. Bocage, Lisbon **22** (1951) [?1953]: 35–38, 2 figs. [Col.]

2224.—Luna de Carvalho, E. Contribuição para o conhecimento dos Strepsípteros de Portugal (III nota). Mem. Estud. Mus. zool. Univ. Coimbra. no. 215: 1–9, 8 figs.

Lüning, K. G. *see* Bonnier & Lüning.

2225.—Lupo, V. Revisione delle cocciniglie italiane VII, VIII. Boll. Lab. Ent. agr. Portici **12**: 16–44, 13 figs., 74–97, 12 figs. [Hem.]

2226.—Lüscher, M. Kann die Determination durch eine monomolekulare Reaktion ausgelöst werden? Rev. suisse Zool., Geneva **60**: 524–528, 4 figs. [Isopt.]

Lutz, J. C. *see* Drake & Lutz.

Lux, A. *see* Korble, Luxová & Lux.

Luxová, M. *see* Korbel, Luxová & Lux.

2227.—Luzzietti, A. M. Sulla biologia degli Anofeli. Atti Accad. Ligure, Genoa **7** 1951: 4–11, 53–56. [Dipt.]

Lyon, M. F. *see* Kaplan & Lyon.

2228.—Maa, Tsing-Chao. A synopsis of Chinese sawflies of the superfamily Cephoidea (Hymenoptera). Chinese J. Zool., Shanghai **3** 1949: 17–29, 9 figs.

2229.—Maa, Tsing-Chao. A synopsis of Chinese sawflies of the superfamily Megalodontoidea (Hymenoptera). Chinese J. Zool., Shanghai **3** 1949: 30–42, 6 figs.

2230.—Maa, Tsing-Chao. On the classification and phylogeny of the Chinese honeybees. (Abstract.) [In Chinese.] Ent. Shaowuana **1** 1944: 4–5. [Not seen.]

2231.—Maa, Tsing-Chao. An inquiry into the systematics of the tribus Apidini or honeybees (Hym.). Treubia, Bogor **21**: 525–640, 154 figs.

Maa, T. *see* Drake & Maa.

2232.—McCann, C. Aposematic insects and their food plants. J. Bombay nat. Hist. Soc. **51**: 752–754.

2233.—McDermott, F. A. Glow-worms in a marine littoral habitat in Jamaica (Coleoptera; Lampyridae). Ent. News, Lancaster, Pa. **64**: 89–90.

2234.—McDermott, F. A. *Photuris bethaniensis*, a new Lampyrid firefly. Proc. U.S. nat. Mus., Washington **103** no. 3314: 35–37. [Col.]

2235.—McDonald, S. & **Brown,** A. W. A. Cytochrome oxidase and cyanide sensitivity of the larch sawfly during metamorphosis. Rep. ent. Soc. Ontario, Toronto **83** 1952 [1953]: 30–34, 1 fig. [Hym.]

2236.—Macdonald, W. W. Lake-flies. Uganda J., Kampala **17**: 124–134. [Dipt.]

2237.—McDonough, E. S. Inhibition of mold contamination in *Drosophila* food using sodium orthophenylphenate. Science, Lancaster, Pa. **118**: 388. [Dipt.]

McElroy, W. D. *see* Hastings, McElroy & Coulombre.

McFarland, R. H. *see* Mahmoud Zeid, Dahm, Hein & McFarland.

2238.—McFarlane, J. E. The morphology of the chordotonal organs of the antenna, mouthparts and legs of the lesser migratory grasshopper, *Melanoplus mexicanus mexicanus* (Saussure). Canad. Ent., Ottawa **85**: 81–103, 33 figs. [Orth.]

2239.—Macfayden, A. Notes on methods for the extraction of small soil arthropods. J. Anim. Ecol., London **22**: 65–77, 1 pl. 3 figs.

2240.—Macfie, J. W. S. Ceratopogonidae from Costa Rica (Diptera). Beitr. Ent., Berlin **3**: 95–105, 4 figs.

2241.—MacGillivray, M. E. & **Spicer,** P. B. Aphid parasites collected in New Brunswick in 1950. Canad. Ent., Ottawa **85**: 423–431. [Hem., Hym.]

2242.—Machado, filho, J. P. Contribuição ao conhecimento do gênero *Parasparatta* Burr, 1911, com descrição de uma espécie nova (Dermaptera–Labidae). Dusenia, Curitiba **4**: 243–246, 1 fig.

2243.—Machatschke, J. W. Zur Variabilität von *Leptinotarsa decemlineata* Say (Vorläufige Mitteilung). Beitr. Ent., Berlin **3**: 304–311, 3 figs. [Col.]

2244.—Machida, J. On the reproductive behavior of the wasp *Polistes*. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939 : 407–409. [Hym.]

Machne, X. *see* Castillo, Hoyle & Machne.

2245.—MacKay, M. R. The larvae of *Choristoneura fumiferana* (Clem.) and *C. pinus* Free. (Lepidoptera : Tortricidae). Canad. Ent., Ottawa **85** : 128–133, 14 figs.

2246.—MacKay, M. R. The last-instar larva of *Epinotia mediovirídana* (Kft.) (Lepidoptera : Olethreutidae). Canad. Ent., Ottawa **85** : 404–407, 14 figs.

2247.—McKenzie, H. L. A new scale insect from the Ryukyu Islands related to red scale (Homoptera : Coccoidea : Diaspididae). Bull. Calif. Dep. Agric., Sacramento **42** : 35–38, 1 fig.

2248.—McKenzie, H. L. Two new *Selenaspidus* scales infesting *Euphorbia* in California (Homoptera ; Coccoidea ; Diaspididae). Scale studies —Part XII. Bull. Calif. Dep. Agric., Sacramento **42** : 53–58, 3 figs.

2249.—Mackerras, I. M. & M. J. Notes on Australasian Simuliidae (Diptera). III. Proc. Linn. Soc. N.S.W., Sydney **77** 1952 : 104–113, 25 figs.

2250.—Mackerras, I. M. & M. J. A new species of *Pelecorhynchus* (Diptera, Tabanoidea) from the Dorrigo plateau, New South Wales. Proc. Linn. Soc. N.S.W., Sydney **78** : 38–40, 3 figs.

McLaren, B. A. *see* Sieburth & McLaren.

McQue, B. *see* Ladisch & McQue.

Madden, C. *see* Wallace & Madden.

2251.—Mader, L. Die Formen der paläarktischen Aphodiinae (contd.). Ent. NachrBl., Vienna **5** : 16–17, 39–40, 55–56. [Col.]

2252.—Madier, M. G. Note sur le " Lepidopterologische Zuträge " de J. Hübner. J. Soc. Bibl. nat. Hist., London **3** : 18–27.

Maebara, H. *see* Shibuya & Maebara.

2253.—Maeda, S., Hagen, K. S. & Finney, G. L. Artificial media and the control of microorganisms in the culture of Tephritid larvae (Diptera : Tephritidae). Proc. Hawaii. ent. Soc., Honolulu **15** : 177–185.

Maeda, S. *see* Roan & Maeda.

2254.—Maeki, K. Aberrant meiotic divisions in some butterflies resulting in the formation of apyrene spermatozoa. [In Japanese with English summary.] Zool. Mag., Tokyo **62** : 445–449, 30 figs. [Lep.]

2255.—Maeki, K. & Makino, S. Chromosome numbers of some Japanese Rhopalocera. Lepid. News, New Haven **7** : 36–38.

2256.—Magis, N. Sur les Malacodermes paléarctiques (Coléoptères) (1–3). Bull. Ann. Soc. ent. Belg., Brussels **89** : 251–255.

2257.—Magni, G. E. ' Sex-ratio ': a non-Mendelian character in *Drosophila bifasciata*. Nature, London **172** : 81. [Dipt.]

2258.—Magni, G. E. Sex-ratio in *Drosophila bifasciata*. R.C. Ist. lombardo, Milan Cl. Sci. mat. nat. **85** 1952 : 391–411. [Dipt.]

2259.—Magnin, J. Développement et mode de reproduction de *Pseudococcus njalensis* Laing. Agron. trop., Nogent **8** : 292–299, 9 figs. [Hem.]

2260.—Magnus, D. Ueber optische " Schlüsselreize " beim Paarungsverhalten des Kaisermantels *Argynnis paphia* L. (Lep. Nymph.). Naturwissenschaften, Berlin **40** : 610–611.

2261.—Mahdihassan, S. Is Indragopa of Brihadaranyaka Upanishad a cochineal insect ? Sci. & Cult., Calcutta **19** : 207.

2262.—Mahmoud Zeid, M. I., Dahm, P. A., Hein, R. E. & McFarland, R. H. Tissue distribution, excretion of $C^{14}O_2$ and degradation of radioactive pyrethrins administered to the American cockroach. J. econ. Ent., Menasha **46** : 324–336, 6 figs. [Orth.]

Mail, G. A. *see* Schoof & Mail.

2263.—Maillet, P. & Carasso, N. Reconstruction du fourreau larvaire chez un Trichoptère Leptoceridae *Triaenodes conspersa* Ramb. Ann. Sci. nat., Paris Zool. (11) **14** (1952) : 473–488, 5 figs.

2264.—Maillot, L. Répartition des glossines en Afrique équatoriale française. Bull. Soc. Path. exot., Paris **46** : 195–197. [Dipt.]

2265.—Maillot, L. Les variétés de *Glossina palpalis* en Afrique équatoriale française. Bull. Soc. Path. exot., Paris **46** : 1066–1080, 1 pl., 13 figs. [Dipt.]

2266.—Mainx, F., **Koske,** T. & **Smital,** E. Untersuchungen über die chromosomale Struktur europäischer Vertreter der *Drosophila obscura*-Gruppe. Z. indukt. Abstamm.- u. VererbLehre, Berlin **85** : 354–372, 1 fldg. pl. 3 figs. [Dipt.]

2267.—Mainx, F., **Kunze,** E. & **Koske,** T. Cytologische Untersuchungen an Lunzer Chironomiden. Oest. zool. Z., Vienna **4** : 33–44, 2 figs. [Dipt.]

Maki, Y. *see* Hama, Maki & Aruga.

Makino, K. *see* Koidsumi & Makino.

2268.—Makino, S. & **Saito,** K. Results of gonadectomy and gonadal transplantation in the sex races of *Lymantria dispar*. Lepid. News, New Haven **7** : 7–8.

Makino, S. *see* Maeki & Makino.

2269.—[Mal'chevskii, A. S. & **Kadochnikov,** N. P.] Method of studying the nutrition of live nestlings of insectivorous birds. [In Russian.] Zool. Zhurn., Moscow **32** : 277–282.

2270.—Malcomson, R. O. Arthropod teratology. Canad. Ent., Ottawa **85** : 313–315, 2 figs.

2271.—Maldonado Capriles, J. Redescription of the genus *Burtinus* Stål and description of a new species from Puerto Rico (Hemiptera, Coreidae). Proc. ent. Soc. Wash. **55** : 40–44, 4 figs.

2272.—Maldonado Capriles, J. Five new Neotropical species of *Ghilianella* (Hemiptera, Reduviidae). Proc. ent. Soc. Wash. **55** : 189–195, 18 figs.

Maldonado Capriles, J. *see* Fox & Maldonado Capriles.

Malek, S. R. A. *see* Dennell & Malek.

Malheiro, D. de M. *see* Mello Malheiro.

Malik, A. P. *see* Sharma & Malik.

2273.—Malkin, B. African species of the genus *Machlotes* (Coleoptera Colydiidae). Rev. Zool. Bot. afr., Brussels **48** : 149–161, 21 figs.

2274.—Malogolowkin, C. Sôbre a genitália dos Drosofilídeos. IV. A genitália masculina no subgênero *Drosophila* (Diptera, Drosophilidae). Rev. brasil. Biol., Rio de Janeiro **13** : 245–264, 58 figs.

2275.—Mamet, R. The authorship of the species of Coccoidea (Hemiptera) described from Mauritius in 1899. Proc. R. ent. Soc. London (A) **28** : 149–152, 2 figs.

2276.—Mancini, C. Corologia emitterologica italiani. Boll. Ass. romana Ent., Rome **8** : 12–13, 22–27.

2277.—Mancini, C. Miscellanea emitterologica italiana I. Boll. Soc. ent. ital., Genoa **82** 1952 : 56–64.

2278.—Mandl, K. Zwei bemerkenswerte *Cicindela*-Aberrationen aus der Sammlung G. Frey, München (Col. Carab.). Ent. Arb., Munich **4** : 14–15.

2279.—Mandl, K. Beschreibung einer neuen *Oxychila*-Art und kritische Bemerkungen zur W. Horn'schen Revision der Gattung *Oxychila* Dej. (Col. Cicind.). Mitt. schweiz. ent. Ges., Berne **26** : 310–318, 13 figs.

2280.—Mandl, K. Die Ergebnisse der österreichischen Iran-Expedition 1949–50. Coleopteren I. Teil. Cicindelidae, Carabidae (genera *Carabus* und *Calosoma*). S.B. öst. Akad. Wiss., Vienna Abt. I **162** : 53–59.

2281.—Mandl, K. Ergebnisse einer koleopterologischen Sammelreise in das südwestliche Adamello-Gebiet. Studi trentini, Trento **30** : 128–135, 5 figs.

2282.—Manfridi, F. Su alcune caratteristiche morfologiche dell'*A.* (*Ochlerotatus*) *caspius* Pallas. R.C. Ist. sup. Sanit., Rome **16** : 204–210, 7 figs. [Dipt.]

2283.—Mani, M. S. On a collection of plant galls from the central Himalayas. Agra Univ. J. Res. (Sci.) **2** : 135–158, 4 pls.

2284.—**Mani,** M. S. On a collection of plant galls and gall midges from India. Agra Univ. J. Res. (Sci.) **2**: 247–265, 3 pls., 2 figs. [Dipt.]

2285.—**Mani,** M. S. Descriptions of three gall midges (Itonididae: Diptera) from India. Indian J. Ent., New Delhi **15**: 119–125, 29 figs.

2286.—**Mani,** M. S. & **Chandy Kurian.** Descriptions and records of Chalcids (parasitic Hymenoptera) from India. Indian J. Ent., New Delhi **15**: 1–22, 78 figs.

Mankiewicz, E. *see* Good, Morrison & Mankiewicz.

2287.—**Mannheims,** B. Ricerche zoologische sul Massiccio del Pollino (Lucania-Calabria). VII. Zur Kenntnis der Tipuliden Italiens (Dipt. Tipulidae). Ann. Ist. Mus. Zool. Univ. Napoli **5** no. **4**: 1–8, 5 figs.

2288.—**Mannheims,** B. Zur Synonymie der europäischen Tipuliden (Dipt.) III. Bonn. zool. Beitr. **4**: 344.

2289.—**Mannheims,** B. Tipulidae. *In* Lindner, Flieg. palaearkt. Reg. **15** 1952: 65–112, 1 pl. 33 figs., 1953: 113–136, 18 figs. [Dipt.]

Mannheims, B. *see* Lengersdorf & Mannheims.

2290.—**Manning,** F. J. Sex determination in the honey bee. Evolution, Lancaster, Pa. **6** (1952): 443. [Hym.]

2291.—**Manning,** F. J. The sex chromosome of the honey bee. Evolution, Lancaster, Pa. **7**: 388–390, 2 figs. [Hym.]

2292.—**Manning,** F. J. The cytogenetics of the honey bee. Microscope, London **9** 1952: 93–98, 1 pl. [Hym.]

2293.—**Manning,** F. J. Recent and fossil honeybees: Some aspects of their cytology, phylogeny and evolution. Proc. Linn. Soc. London **163** 1952: 3–8, 1 pl. 1 fig. [Hym.]

2294.—**Manninger,** G. A. Die Bedeutung und Anwendungsmöglichkeit der Insektenprognose demonstriert am Beispiel der Getreidewanzen (*Eurygaster* und *Aelia* Arten). [In Magyar with German summary.] Ann. Fac. Agron. Univ. Agric. [? Budapest] **1** 1950: 117–129. [Hem.]

2295.—**Manso Soto,** A. E., **Martínez,** A. & **Prosen,** A. F. Distribución geográfica de *Haemagogus* spp. y *Aëdes* (*Gualteria*) *leucocaelenus* en Argentina y Bolivia según materiales de M.E.P.R.A. Publ. Mis. Estud. Pat. reg. argent., Buenos Aires **24** nos. 83–84: 33–41, 2 maps. [Dipt.]

2296.—**Mařan,** J. Results of the zoological scientific expedition of the National Museum in Praha to Turkey 8. Orthoptera I. Acrididae, genus *Calliptamus* Serv. Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 384: 59–64, 2 figs.

2297.—**Mařan,** J. The northern limit of the geographical distribution of the species *Acrida hungarica* (Herbst) and of some other thermophile species of the Acridoidea in Czechoslovakia. [In Czech with English summary.] Acta Mus. Siles., Opava (A) **2** (1952): 25–36, 4 pls. [Orth.]

2298.—**Marchand,** H. Die Bedeutung der Heuschrecken und Schnabelkerfe als Indikatoren verschiedener Graslandtypen (Ein Beitrag zur Agrarökologie). Beitr. Ent., Berlin **3**: 116–162, 3 figs. [Orth., Hem.]

2299.—**Marcus,** H. Observaciones termitológicas. Folia univ., Cochabamba **6**: 3–16, 11 figs. [Isopt.]

2300.—**Marcus,** H. Estudios mirmecológicos. Folia univ., Cochabamba **6**: 17–68, 52 figs. [Hym.]

2301.—**Marcuzzi,** G. Un nuovo genere di Tenebrionidae (Col. Heter.) del Venezuela. Mem. Mus. civ. Stor. nat. Verona **3** 1951–52 [? 1953]: 31-34, 3 figs.

2302.—**Margabandhu,** V. & **Ananthakrishnan,** T. N. Annotated list of Indian Thysanoptera (Supplement). Indian J. Ent., New Delhi **15**: 183–190.

2303.—**Margalef,** R. Primera y segunda notas sobre la biología de las aguas estancadas del Bajo Urgel. Lerida, Inst. Estud. ilerdenses 1945: 1–65, 8 pls. figs.; 1950: 1–46, 4 pls.

Margem, N. *see* Aragão, Frota-Pessôa & Margem.

Mariani, M. *see* Buonomini & Mariani.

2304.—Marion, H. Ebauche d'une classification nouvelle des Pyraustidae. Rev. franç. Lépid., Paris **14** : 53–59.

2305.—Marion, H. & **Viette,** P. Descriptions de deux nouvelles Pyrales malgaches (Lep., Pyralididae). Bull. Soc. ent. France, Paris **58** : 39–42, 4 figs.

2306.—Markkula, M. Biologisch-ökologische Untersuchungen über die Kohlblattlaus, *Brevicoryne brassicae* (L.) (Hem., Aphididae). Ann. zool. Soc. zool. bot. fenn. Vanamo, Helsinki **15** no. 5 : [6+] 1–113, 42 figs.

2307.—Markl, W. Eine neue Myrmeleonidengattung und Art aus Südwestafrika (Neuroptera). Mitt. schweiz. ent. Ges., Berne **26** : 277–280, 1 fig.

2308.—Marlier, G. Etudes hydrobiologiques dans les rivières du Congo oriental. A. Trichoptères—Sericostomatidae. B. Trichoptères-Polycentropidae (Dipseudopsinae). Ann. Mus. Congo belg., Tervuren (Sér. 8°) Sci. zool. **21** (1952) : 1–65, 30 figs.

2309.—Maroń, K. Regeneracja u wszy odziezowej *Pediculus humanus corporis*. [In Polish with English summary.] Folia biol., Krakow **1** : 83–85, 1 fig. [Anopl.]

2310.—Marsden-Jones, E. M. A study of the life-cycle of *Adleria kollari* Hartig, the Marble or Devonshire gall. Trans. R. ent. Soc. London **104** : 195–222, 2 pls. 9 figs. [Hym.]

2311.—Marshall, Sir G. A. K. New Curculionidae (Col.) from southern Africa. Ann. Mag. nat. Hist., London (12) **6** : 321–332.

2312.—Marshall, Sir G. A. K. New Cossoninae from the Belgian Congo. Ann. Mus. Congo belge, Tervuren (Sér. 8°) Sci. zool. **25** : 7–26, 6 figs. [Col.]

2313.—Marshall, Sir G. A. K. New Curculionidae (Col.) from Indo-China. Ent. mon. Mag., London **89** : 90–93.

2314.—Marshall, Sir G. A. K. On a collection of Curculionidae (Coleoptera) from Angola. Publ. cult. Cia Diamant. Angola, Lisbon no. **16** : 99–119, 3 figs.

2315.—Marshall, Sir G. A. K. New Curculionidae from the Belgian Congo (Col.). Rev. Zool. Bot. afr., Brussels **48** : 1–16, 3 figs.

2316.—Marshall, Sir G. A. K. Four new Curculionidae (Col.) from New Zealand. Trans. roy. Soc. N.Z., Dunedin **81** : 67–70.

2317.—Marson, J. E. The preparation of microslides of the honeybee. Part II : The dissection and mounting of parts. Bee World, London **34** : 4–7, 1 fig. [Hym.]

2318.—Martelli, A. Sulla presenza in Toscana del *Criocephalus* (*Cephalocrius*) *syriacus* Reitt. Redia, Florence **37** 1952 : 479–486, 2 pls. 7 figs. [Col.]

2319.—Martelli, M. Reperti sulla *Terellia fuscicornis* (Loew) (Diptera Trypetidae). Redia, Florence **37** 1952 : 405–442, 18 figs.

2320.—Martin, B. A. Temporary elimination of the autosomes from the meiotic spindle in a Halycinid Pentatomid. J. Morph., Philadelphia Pa. **92** : 207–239, 48 figs. [Hem.]

2321.—Martin, C. H. The range of variation and a new synonym in the genus *Myelaphus* Bigot (Diptera, Asilidae). J. Kansas ent. Soc., Manhattan **26** : 66–69, 4 figs.

2322.—Martin, C. H. Intraspecific variation of taxonomic characters in *Coleomyia* and two new species (Diptera : Asilidae). Pan-Pacif. Ent., San Francisco **29** : 25–34.

2323.—Martínez, A. Una nueva especie de *Athyreus* (Col. Scarab. Geotrup.). Mitt. münch. ent. Ges., Munich **43**: 226-233, 1 pl.

2324.—Martínez, A. Scarabaeidae nuevos o poco conocidos IV (Coleoptera, Scarabaeoidea). Publ. Mis. Estud. Pat. reg. argent., Buenos Aires **24** nos. 83–84 : 69–85, 22 figs.

2325.—Martínez, A. & **Prosen,** A. F. Una nueva especie de mosquito de la Argentina. Folia Mision Estud. Pat. reg. argent., [Jujuy] no. 1 : 1–2. [Dipt.]

2326.—Martínez, A. & Prosen, A. F. Nuevos culícidos para las entomofaunas de Argentina, Bolivia y Paraguay. Publ. Mis. Estud. Pat. reg. argent., Buenos Aires **24** nos. 83–84 : 27–32. [Dipt.]

Martínez, A. *see* Manso Soto, Martínez & Prosen ; Prosen & Martínez.

2327.—Martínez Palacios, A. Nota sobre la distribución de los mosquitos *Culex* en México (Diptera: Culicidae). Rev. Soc. mexicana Hist. nat., Mexico **13** 1952 : 75–95.

2328.—Martínez Palacios, A. *Culex inflictus* Theobald y *Culex thriambus* Dyar, mosquitos nuevos para México (Diptera : Culicidae). Rev. Soc. mexicana Hist. nat., Mexico **13** 1952 : 89–95, 6 figs.

2329.—Martínez Palacios, A. & **Vargas,** L. Confirmación de la presencia de *Anopheles* (*Kerteszia*) *neivai* H. D. & K., en México. Rev. Soc. mexicana Hist. nat., Mexico **13** 1952 : 45–46. [Dipt.]

Martínez Palacios, A. *see* Vargas & Martínez Palacios.

2330.—[Martȳnova, E. F.] Peculiarities of the Lepidopterous fauna of the southern Ural region and its significance for the steppe afforestation. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952 : 66–91, 3 figs.

2331.—[Martȳnova, O. M.] The composition of the fauna of Mecoptera from Kuznetzk. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **89** : 727–729. [Fossil.]

Masaki, S. *see* Uchida & Masaki.

2332.—Mashhood Alam, S. The poison apparatus of a Braconid wasp. Proc. 4th Indian Sci. Congr. Lucknow, Calcutta 1953 Part III Abstracts : 198–199. [Hym.]

2333.—Mashhood Alam, S. Studies on the structure and working of the "egg-laying mechanism" in *Stenobracon deesae* Cam. (Braconidae, Hymenoptera). Z. Parasitenk., Berlin **15** 1952 : 357–368, 11 figs.

2334.—Masi, L. Descrizione di una nuova specie di *Derostenus* Westw. (Hymenoptera Chalcidoidea). Boll. Ist. Ent. Univ. Bologna **19** 1952 : 145–146.

2335.—Masi, L. Descrizione di una nuova specie del genere *Lanceosoma* Erdös (Hymenoptera Chalcidoidea, Pteromalidae). Boll. Ist. Ent. Univ. Bologna **19** : 391–393.

2336.—Massera, M. G. Collemboli della grotta Arma della Pollera N. 24 Li. presso Finale Ligure. Boll. Soc. ent. ital., Genoa **82** 1952 : 29–33, 4 figs.

2337.—Masters, C. O. Seasonal succession of mosquito species and the relationship existing between dissolved minerals in mosquito-breeding waters and species. Mosq. News, Albany, N.Y. **13** : 159–161, 1 fig. [Dipt.]

2338.—Mateu, J. Quelques *Microlestes* du Sahara méridional et de la Mauritanie recueillis par M. Ph. Bruneau de Miré (Col. Carabiques). Ann. Soc. ent. France, Paris **122** : 113–121, 4 figs.

2339.—Mateu, J. Algunos *Tachyura* del sudeste de España (Col. Carabidae). Boll. Soc. ent. ital., Genoa **82** : (1952) : 95–98, 1 fig.

2340.—Mateu, J. Los *Calathus* de Tenerife. Eos, Madrid **29** : 201–233, 2 pls. [Col.]

2341.—Mather, B. A migration of *Ascia monuste* in Mississippi. Lepid. News, New Haven **7** : 13–14.

2342.—Mathis, M. Mise en évidence dans une colonie d'abeilles d'un centre thermique autorégulateur. Résistance de ce centre aux chocs thermiques. Ann. Sci. nat., Paris Zool. (11) **14** (1952) : 433–437, 4 figs. [Hym.]

Mathur, R. K. *see* Roonwal, Mathur, Bhasin, Singh, Pant, Chandra, Katiyar & Mathur.

2343.—Mathur, R. N. A new species of bat-bug—*Aphraniola*—from Dehra Dun (Cimicidae : Hemiptera). Indian J. Ent., New Delhi **14** (1952) : 257–261, 4 figs.

Mathur, R. N. *see* Roonwal, Mathur, Bhasin, Singh, Pant, Chandra, Katiyar & Mathur.

2344.—Matsuda, R. A new green *Empoasca* leafhopper injurious to the tea shrub in Japan. [In Japanese & English.] Oyo-Kontyu, Tokyo **8** 1952 : 19–21, 2 figs. [Hem.]

2345.—Matsuda, T. Some notes on the reaction of *Hypogastrura* sp. (Collembola) to coloured papers arranged in a farm area. [In Japanese with English summary.] Ecol. Rev., Sendai **13** : 179–181, 3 figs.

Matsuda, T. *see* Katô, Matsuda & Yamasita.

2346.—Matsumoto, S., **Santa,** H. & **Otuka,** M. Studies on the diapause in the cabbage armyworm, *Barathra brassicae* L. II. The effect of temperature and photoperiod on the induction of diapause. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **9** : 45–51, 4 figs. [Lep.]

2347.—Matsumoto, S. & **Yushima,** T. The influence of different foodplants on the larval development of the cabbage armyworm, *Barathra brassicae*. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1950 : 70–77. [Lep.]

2348.—Matsumoto, S., **Yushima,** T. & **Santa,** H. Studies on the non-diapause type of the cabbage-armyworm (*Barathra brassicae* L.). [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** : 89–92, 1 fig. [Lep.]

Matsuura, I. *see* Ohmachi & Matsuura.

2349.—Matsuzawa, H. On the distribution of the common cabbage butterfly, *Pieris rapae crucivora*, in the field. [In Japanese with English summary.] Res. Ecol. Popul., Kyoto **2** : 106–111, 2 figs. [Lep.]

2350.—Matthes, E. Die bei *Fumea crassiorella* (Lepid., Psychidae) vor der Metamorphose stattfindende Drehung als Beispiel einer autonomen Instinkthandlung. Z. Tierpsychol., Berlin **10** : 12–24, 19 figs.

2351.—Mattingly, P. F. New records and a new species of the subgenus *Stegomyia* (Diptera, Culicidae) from the Ethiopian region. Ann. trop. Med. Parasit., Liverpool **47** : 294–298, 1 fig.

2352.—Mattingly, P. F. The subgenus *Stegomyia* (Diptera : Culicidae) in the Ethiopian region (Part II). Distribution of species confined to the East and South African sub-regions. Bull. Brit. Mus. (Nat. Hist.), London Ent. **3** : 1–65, 15 figs.

2353.—Mattingly, P. F. The problem of biological races in the *Culex pipiens* complex. Proc. Linn. Soc. London **163** 1952 : 53–57. [Dipt.]

2354.—Mattingly, P. F. A change of name among the British mosquitoes (Diptera : Culicidae). Proc. R. ent. Soc. London (B) **22** : 106–108.

2355.—Mattingly, P. F. The *Culex pipiens* complex. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 285–288, 1 fig. [Dipt.]

2356.—Mattingly, P. F. & **Lips,** M. Notes on the Culicini of the Katanga (Diptera, Culicidae). Rev. Zool. Bot. afr., Tervuren **47** : 311–343, 9 figs. ; **48** : 49–72.

Mattoni, R. H. T. *see* Epling, Mitchell & Mattoni.

2357.—Maturo, jr., F. J. S. Range extensions of Rhopalocera in eastern North Carolina. A checklist of the species of Carteret County, N.C. J. Elisha Mitchell sci. Soc., Chapel Hill **69** : 150–155. [Lep.]

Maughan, L. *see* Johnson & Maughan.

2358.—Mavromoustakis, G. A. New and little-known bees of the subfamily Anthidiinae (Apoidea).—Parts V, VI. Ann. Mag. nat. Hist., London (12) **6** : 637–639, 834–840. [Hym.]

2359.—Mavromoustakis, G. A. On the bees (Hymenoptera, Apoidea) of Cyprus. Part IV. Ann. Mag. nat. Hist., London (12) **6** : 769–781.

2360.—Mavromoustakis, G. A. On some Anthidiine bees (Apoidea) from Palestine. Part IV. Ann. Mag. nat. Hist., London (12) **6** : 791–796. [Hym.]

2361.—Maw, M. G. & **Coppel,** H. C. Studies on Dipterous parasites of the spruce budworm *Choristoneura fumiferana* (Clem.) (Lepidoptera : Tortricidae) II. *Phryxe pecosensis* (Tns.) (Diptera : Tachinidae). Canad. J. Zool., Ottawa **31** : 392–403, 18 figs.

2362.—May, A. W. S. Three new species of Dacinae (Trypetidae Diptera) from Queensland. Qd J. agric. Sci., Brisbane **9** 1952: 335–341, 3 figs.

2363.—May, A. W. S. Queensland host records for the Dacinae (fam. Trypetidae). Qd J. agric. Sci., Brisbane **10**: 36–79, 5 figs. [Dipt.]

2364.—Mayné, R. Scolytides intéressants dans une forêt naturelle de ravin (Acereto-Fraxinetum). Bull. Ann. Soc. ent. Belg., Brussels **89**: 309–311. [Col.]

2365.—Mayr, E., **Linsley,** E. G. & **Usinger,** R. L. Methods and principles of systematic zoology. New York, McGraw-Hill Book Co., Inc. ix & 328 pp. 45 figs.

2366.—[Mazokhin - Porshnyakov, G. A.] Coleoptera, Necrophorini of N.E. China. [In Russian.] Zool. Zhurn., Moscow **32**: 235–237, 2 figs.

2367.—Mazurowa, G. Halticinae des environs de Cracovie. [In Polish with English summary.] Bull. ent. Pologne **20** (1950) 1951: 102–117. [Col.]

2368.—Mazzucco, K. Falterwanderwellen aus dem Süden. Z. wien. ent. Ges., Vienna **38**: 81–87, 1 fig. [Lep.]

Mead, F. W. *see* Venard & Mead.

2369.—Mechelke, F. Reversible Strukturmodifikationen der Speicheldrüsenchromosomen von *Acricotopus lucidus*. Chromosoma, Berlin **5**: 511–543, 31 figs. [Dipt.]

2370.—[Medvedev, S. I.] Larvae of Scarabaeid beetles of the fauna of the USSR. [In Russian.] Opred. Faune SSSR, Moscow **47** 1952: 1–343, 537 figs. [Col.]

2371.—[Medvedev, S. I.] Fn. USSR. Coleoptera 10 no. 2. Lamellicorns (Scarabaeidae) subfam. Melolonthinae pt. 2 (cockchafers). [In Russian.] Zool. Inst. Akad. Nauk SSSR, Moscow (N.S.) **52** 1952: 1–274, 420 figs.

2372.—[Medvedev, S. I.] Basic features of the entomofauna of the region where the Kakhovka power station is under construction. [In Russian.] Zool. Zhurn., Moscow **32**: 1126–1140.

Medwecka-Kornaś, A. *see* Wojtusiak, Kałkowski, Medwecka-Kornaś & Kornaś.

Meer Mohr, J. C. van der *see* Naezer & Meer Mohr.

2373.—Méhes, G. Nouvelles galles du chêne se présentant très rare. Ann. hist.-nat. Mus. hung., Budapest (N.S.) **3**: 183–189, 2 pls.

2374.—Mehtab, M. Chromosomal re-arrangements in the progeny of *Drosophila* males treated with mustard gas. Nature, London **171**: 262. [Dipt.]

Meillon *see* De Meillon.

Meiners, E. P. *see* Froeschner & Meiners.

2375.—Melis, A. Tisanotteri italiani IX Genus *Thrips*. Cenni morfologici sul genere. Redia, Florence **37** 1952: 1–67, 4 pls. 21 figs.

2376.—Mell, R. Wandern als Ausgleich meteorologisch-sexueller Spannungen bei Lepidopteren (gezeigt am Windenschwärmer Ostasiens). Ent. Z., Frankfurt a. M. **63**: 129–136, 141–142.

2377.—Mellini, E. Insetti del *Carduus nutans* L. III. *Euribia solstitialis* L. (Diptera Trypetidae). Boll. Ist. Ent. Univ. Bologna **19** 1952: 97–119, 9 figs.

2378.—Mellini, E. & **Fiori,** G. Relazione su una missione di studio nel deserto libico. Boll. Ist. Ent. Univ. Bologna **19**: 251–261, 11 figs.

Mellini, E. *see* Fiori & Mellini.

2379.—Mello, I. F. de. Sur une oxymonade de l'intestin du termite africain *Cryptotermes havilandi* Sjöstedt, récolté à Santos (Brésil). Rev. brasil. Biol., Rio de Janeiro **13**: 65–72, 10 figs. [Isopt.]

Mello Malheiro, D. de *see* Giovannoni & Mello Malheiro.

Melnick, J. L. *see* Penner & Melnick.

Mémin, Y. *see* Durand-Delacre & Mémin.

Menon *see* Ram Das Menon.

2380.—Merrell, D. J. Gene frequency changes in small laboratory populations of *Drosophila melanogaster*. Evolution, Lancaster, Pa. **7**: 95–101. [Dipt.]

2381.—Merrell, D. J. Selective mating as a cause of gene frequency changes in laboratory populations of *Drosophila melanogaster*. Evolution, Lancaster, Pa. **7**: 287–296, 5 figs. [Dipt.]

2382.—Merrill, G. B. A revision of the scale-insects of Florida. Order: Homoptera. Superfamily: Coccoidea. Bull. Pl. Bd Fla, Gainesville no. 1: 1–143, 112 figs. [Hem.]

2383.—Mesnil, L. P. Nouveaux Tachinaires d'Orient (1re & 2e parties). Bull. Ann. Soc. ent. Belg., Brussels **89**: 85–114, 146–178. [Dipt.]

2384.—Mesnil, L. P. A new Tachinid parasite of an Embiopteron. Proc. R. ent. Soc. London (B) **22**: 145–146, 1 pl. 1 fig. [Dipt.]

2385.—Metcalf, Z. P. Sexual dimorphism with a new species of *Philya* Walker (Homoptera: Membracidae). J. New York ent. Soc. **61**: 45–51, 2 pls.

2386.—Metcalf, Z. P. Two genera of Tettigellidae proposed by Melichar. Ohio J. Sci., Columbus **53**: 47–50, 1 pl. [Hem.]

2387.—Metcalf, Z. P. Young's reclassification of western hemisphere Typhlocybinae (Hemiptera, Cicadellidae). Proc. ent. Soc. Wash. **55**: 166.

Meyer, H. *see* Wiedbrauck.

2388.—Meyer, J. H. Die Bluttransfusion als Mittel zur Ueberwindung letaler Keimkombination bei Lepidopteren-Bastarden. Z. wien. ent. Ges., Vienna **38**: 44–62, 3 pls.

2389.—Meyer, J. H. Ein *Celerio livornica* - Freilandhybrid und Bemerkungen über *Cel.* hybr. *pauli* Mory. Ent. Z., Frankfurt a. M. **62**: 161–167. [Lep.]

2390.—Meyer, J. H. Ein neuer Hybrid (*Deilephila l. livornica* ♂ × *vespertilio* Esp. ♀). Ent. Z., Frankfurt a. M. **63**: 9–13, 1 pl. [Lep.]

2391.—Michener, C. D. A note on a subgeneric name in the Saturniidae (Lepidoptera). Ent. News, Lancaster, Pa. **64**: 124.

2392.—Michener, C. D. A note on a Saturniid moth from Argentina (Lepidoptera). J. Kansas ent. Soc., Manhattan **26**: 10.

2393.—Michener, C. D. Life-history studies in insect systematics. Syst. Zool., Washington, D.C. **2**: 112–118.

2394.—Michener, C. D. Comparative morphological and systematic studies of bee larvae with a key to the families of Hymenopterous larvae. Univ. Kansas Sci. Bull., Lawrence **35**: 987–1102, 287 figs.

2395.—Michener, C. D. The biology of a leafcutter bee (*Megachile brevis*) and its associates. Univ. Kansas Sci. Bull., Lawrence **35**: 1659–1748, 31 figs. [Hym.]

2396.—Michener, C. D. & M. H. American social insects. New York & London, D. Van Nostrand Co., Inc. 1951 xiv & 267 pp. 109 pls. (30 col.).

Mickel, C. E. *see* Harden & Mickel.

2397.—Micks, D. W. & Benedict, A. A. Infrared spectrophotometry as a means for identification of mosquitoes. Proc. Soc. exp. Biol. Med., New York **84**: 12–14, 2 figs. [Dipt.]

2398.—Middlekauff, W. W. A new species of web-spinning sawfly feeding upon pines (Hymenoptera, Pamphiliidae). Pan-Pacif. Ent., San Francisco **29**: 133–134.

2399.—Mihelčič, F. Beitrag zur Kenntnis der Oribatei und Collembolen der Humusböden. Arch. zool. (ital.), Napoli **37** 1952: 93–106, 7 figs.

2400.—Mikšić, R. *Anomala junii* Duft., eine neue *Mimela*-Art Europas (Coleoptera, Scarabaeidae). Tijdschr. Ent., Amsterdam **96**: 99–100, 2 figs.

2401.—Mikulska, I. The chromosomes of the parthenogenetic and thelytokian weevil *Eusomus ovulum* Germ. (Curculionidae, Coleoptera). Bull. int. Acad. Cracovie (BII) **1951** 1952: 293–307, 1 pl. 10 figs.

2402.—Mikulski, J. S. Jętki (Ephemeroptera). [In Polish.] Fauna Słodkowodna polski, Warsaw no. 15 1936: 1–168, 122 figs.

2402A.—Miles, M. Studies of British Anthomyiid flies. Bull. ent. Res., London **43**: 591–596, 1 pl. 4 figs., **44**: 583–588, 5 figs. [Dipt.]

2403.—Miles, P. M. Immigrant Lepidoptera observed in Wales during 1952. Ent. mon. Mag., London **89**: 271–272.

2404.—Miles, P. M. The capture and marking of migrant insects. Rep. W. Wales Fld Soc., Haverfordwest no. 15: 28–32, 3 figs.

Miles, R. C. *see* Horsfall, Miles & Sokatch.

2406.—Miller, D. Historical review of New Zealand entomology. Rep. 7th Sci. Congr. Christchurch [N.Z.] 1951 1953: 80–86.

2407.—Miller, F. & Řezáč, M. Stvolník révový—*Psoa viennensis* Hrbst. (Coleopt.). Příspěvek k morfologii a bionomii. [In Czech with German summary.] Zool. ent. Listy, Brno **2**: 7–22, 6 pls. 2 figs.

2408.—Miller, F. & Řezáč, M. [*Etiella zinckenella* (Tr.), a new pest of our soya beans.] [In Czech.] Zool. ent. Listy, Brno **2**: 22–28, 2 pls. 5 figs. [Lep.]

Miller, J. J. *see* Musgrave & Miller.

2409.—Miller, N. C. E. A note on the ova of Urostylidae (Hem., Heteroptera). Ent. mon. Mag., London **89**: 137, 1 fig.

2410.—Miller, N. C. E. A new species of *Lucretilis* (Orthoptera-Acrididae) from Malaya. Proc. R. ent. Soc. London (B) **22**: 142–143, 1 fig.

2411.—Miller, N. C. E. Notes on the biology of the Reduviidae of Southern Rhodesia. Trans. zool. Soc. London **27**: 541–672, 9 col. pls. 58 figs. [Hem.]

Miller, N. C. E. *see* China & Miller.

2412.—Mills, H. B. & Richards, W. R. Collembola from arctic and boreal Canada. J. Kansas ent. Soc., Manhattan **26**: 53–59, 11 figs.

2413.—Minamikawa, J. Biological notes on the three brood tea looper caterpillar, *Jankowskia athleta* Oberthür (Lep. Geometridae). [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951: 171–180, 2 figs.

2414.—Minamikawa, J. The life-history of *Gonodontis* looper caterpillar (*Gonodontis arida* (Butler)) (Lep. Geometridae). [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** 1952: 8–13, 2 figs.

Miner, F. D. *see* Rolston & Miner.

2415.—Mirsa, A. & Ortiz, I. *Phlebotomus foliatus* n. sp. (Diptera Psychodidae) un nuevo flebótomo de Venezuela. Rev. Sanid. Asist. soc., Caracas **17** 1952: 249–252, 3 pls.

Mirsa, M. *see* Ortiz & Mirsa.

2416.—Mirzayan, H. Les Orthoptères de l'Iran. Suite de la liste des Acridodea, Tettigoniodea et Gryllodea. Ent. Phytop. appl., Teheran no. 12–13 1951: 29–34.

2417.—[Mishchenko, L. L.] Fn. USSR. Insects: Orthoptera 4 no. 2. Acridids (Catantopinae). [In Russian.] Zool. Inst. Akad. Nauk SSSR, Moscow (N.S.) **54** 1952: 1–610, 520 figs.

2418.—Mishra, J. N. Green muscardine fungus on sugarcane froghoppers in Bihar. Sci. & Cult., Calcutta **18**: 547–548. [Hem.]

Mitchell, D. F. *see* Epling, Mitchell & Mattoni.

2419.—Mitra, R. D. Notes on sand-flies. Part V. *Phlebotomus smithi* n. sp. Indian med. Gaz., Calcutta **88**: 473–474. [Dipt.]

2420.—Mitra, R. D. Relation of larval diet to the toxicity of insecticide on the housefly *Musca nebulo* F. Sci. & Cult., Calcutta **18**: 551–553, 4 figs. [Dipt.]

2421.—Mitra, R. D. & S. D. A discussion on the subgeneric position of *Phlebotomus* (Diptera: Psychodidae). Z. Parasitenk., Berlin **15**: 433–436, 3 figs.

2422.—Mitra, R. D. & Roy, D. N. Notes on sand flies, Parts III, IV. Indian med. Gaz., Calcutta **88**: 324–326, 369–372. [Dipt.]

2423.—Mittelstaedt, H. Zur Analyse physiologischer Regelungssysteme. Verh. dtsch. zool. Ges., Leipzig **1951** 1952: 150–157, 7 figs.

2424.—Mittelstaedt, H. Ueber den Beutefangmechanismus der Mantiden. Verh. dtsch. zool. Ges., Leipzig **1952**: 102–106, 4 figs. [Orth.]

2425.—Mittelstaedt, H. & **Holst,** E. von.. Reafferenzprinzip und Optomotorik (eine Erwiderung). Zool. Anz., Leipzig **151** : 253–259.

2426.—Mittler, T. E. Amino-acids in phloem sap and their excretion by Aphids. Nature, London **172** : 207. [Hem.]

Mittler, T. E. *see* Kennedy & Mittler.

2427.—Miwa, Y. Descriptions of four new species belonging to the family Tenebrionidae from Formosa. Zool. Mag., Tokyo **51** 1939 : 412–415, 4 figs. [Col.]

2428.—Miya, K. Studies on the development of the gonad of the silkworm IV. The gonad-formation in the cauterized eggs of the silkworm, *Bombyx mori* L. [In Japanese with English summary.] Zool. Mag., Tokyo **61** 1952 : 13–17, 1 fig. [Lep.]

2429.—Miyamoto, S. Biology of *Helotrephes formosanus* Esaki et Miyamoto, with descriptions of larval stages. Sieboldia, Fukuoka **1** 1952 : 1–10, 3 pls. [Hem.]

2430.—Miyamoto, S. Biology of *Microvelia diluta* Distant, with descriptions of its brachypterous form and larval stages. Sieboldia, Fukuoka **1** : 113–133, 4 pls. 1 fig. [Hem.]

2431.—Miyatake, M. Some unrecorded or little known Longicorn-beetles from Shikoku, Japan (Coleoptera). Trans. Shikoku ent. Soc., Matsuyama **3** : 184.

Miyatake, M. *see* Ishihara, Miyatake, Hisamatsu, Edashige & Sasaki.

2432.—Miyazaki, I. On a new anopheline mosquito *Anopheles yatsushiroensis* n. sp. found in Kyushu, with some remarks on two related species of the genus. Kyushu Mem. med. Sci., Fukuoka **2** 1951 : 195–206, 2 pls. 6 figs. [Dipt.]

Mo *see* Tjoa Tjien Mo.

2433.—Mockford, E. L. Three new species of *Archipsocus* from Florida (Psocoptera : Archipsocidae). Florida Ent., Gainesville **36** : 113–124, 30 figs.

2434.—Mockford, E. L. Additional notes on Indiana Psocoptera. Proc. Indiana Acad. Sci., Indianapolis **62** : 198–199.

2435.—Móczár, L. Die Insektenphotographie im Dienste der ökologischen Forschungen. [In Magyar with German summary.] Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4** : 251–263, 5 pls.

2436.—Móczár, L. Pompilidae und Ceropalidae aus der Sammlung von Prof. Dr. G. Grandi. Boll. Ist. Ent. Univ. Bologna **19** : 387–389. [Hym.]

2437.—Móczár, L. Die ungarische Hymenopteren-Literatur 1897–1952. [In Magyar with German summary.] Folia ent. hung., Budapest (N.S.) **6** : 1–76.

2438.—Móczár, L. On the species of *Cryptocheilus* Panzer (Hymenoptera : Pompilidae). Proc. R. ent. Soc. London (B) **22** : 35–40.

2439.—Móczár, M. Système et écologie des bourdons (*Bombus* Latr.) de la Hongrie et de ses régions voisines. [In Magyar with French summary.] Ann. hist.-nat. Mus. hung., Budapest (N.S.) **4** : 131–159. [Hym.]

2440.—Móczár, M. Faunenkatalog der Hummeln (*Bombus* Latr.) (Cat. Hym. IV). [In Magyar with German summary.] Folia ent. hung., Budapest (N.S.) **6** : 197–228.

2441.—Modugno, A. Morfologia e variabilità di caratteri in *Chionaspis evonymi* Comst. Boll. Zool. agr. Bachic., Milan **19** : 113–135, 19 figs. [Hem.]

2442.—Moericke, V. Zur Lebensweise der Pfirsichlaus (*Myzodes persicae* Sulz.) auf der Kartoffel. Bonn, Inst. PflKrankh. Univ. Bonn 1941 [6+] 102 pp. 15 figs. [Hem.]

Mohr *see* Meer Mohr.

2443.—Mokłowska-Hellerowa, A. Multivoltinism in *Celerio euphorbiae* L. (Lepidoptera). [In Polish with English summary.] Bull. ent. Pologne, Wrocław **21** (1951) 1952 : 147–161.

2444.—Moll, H. M. Estudio cariológico del *Decticus albifrons* (Fabr.). Rev. Acad. Cienc. Zaragoza (2) **8** : 55–57, 3 figs. [Orth.]

2445.—Momma, E. Chromosomes of *Drosophila* I. A study of chromosomes in germ cells of *D. buskii* and *D. nigromaculata*. [In Japanese with English summary.] Zool. Mag., Tokyo **62** : 437–440, 10 figs. [Dipt.]

2446.—[**Monchadskii,** A. S.] Nocturnal activity of mosquitos in nature and their epidemiological importance. [In Russian.] Zool. Zhurn., Moscow **32** : 860–873, 3 figs. [Dipt.]

2447.—**Monrós,** F. Seis nuevas especies de Criocerinae del Noroeste argentino (Col. Chrysomelidae). Acta zool. lilloana, Tucuman **10** 1952 : 33–49, 29 figs.

2448.—**Monrós,** F. Revisión de las especies argentinas de Chlamisinae (Col., Chrysomelidae) (5ª contribución al conocimiento de Chlamisinae). Acta zool. lilloana, Tucuman **10** 1952 : 489–672, 177 figs.

2449.—**Monrós,** F. Notas sobre Criocerinae (Col. Chrysomelidae). Acta zool. lilloana, Tucuman **11** 1951 : 467–482, 6 figs.

2450.—**Monrós,** F. Aulacoscelinae, eine neue Chrysomeliden-Unterfamilie, mit Beschreibung einer neuen bolivianischen Gattung (Col.). Ent. Arb., Munich **4** : 19–25, 8 figs.

2451.—**Monrós,** F. & **Viana,** M. J. Las Cassidinae de la sección Hemisphaerotina, con revisión de las especies argentinas (Col. Cassidinae). Acta zool. lilloana, Tucuman **11** 1951 : 367–395, 8 figs.

2452.—**Monte,** T. de. IV° contributo alla conoscenza dei Bembidiini paleartici (Coleoptera, Carabidae). Mem. Soc. ent. ital., Genoa **31** : 83–95, 4 figs.

2453.—**Monteith,** A. E. The occurrence of gynandromorphism in *Sarcophaga cooleyi* Parker (Diptera : Sarcophagidae). Rep. Quebec Soc. Prot. Pl. **32–33** 1950–1951 [1953] : 162–164, 3 figs.

2454.—**Montgomery,** B. E. Notes and records of Indiana Odonata 1951–1952. Proc. Indiana Acad. Sci., Indianapolis **62** : 200–202.

2455.—**Moore,** J. A. Competition between *Drosophila melanogaster* and *Drosophila simulans*. I. Population cage experiments. Evolution, Lancaster, Pa. **6** (1952) : 407–420, 5 figs. [Dipt.]

2456.—**Moore,** N. W. Population density in adult dragonflies (Odonata-Anisoptera). J. anim. Ecol., London **22** : 344–359, 7 figs.

2457.—**Moores,** H. A method for maintaining a colony of *Anopheles gambiae* in the laboratory. Trans. R. Soc. trop. Med. Hyg., London **47** : 321–323. [Dipt.]

2458.—**Morcos,** G. The biology of some Hemiptera-Homoptera (Auchenorhyncha). Bull. Soc. Fouad ler Ent., Cairo **37** : 405–439, 24 figs.

2459.—**Moretti,** G. Bilancio ecologico di una raccolta di Tricotteri delle Marche, Umbria ed Abruzzo. (Studi sui Tricotteri : XXII°). Boll. Zool., Turin **19** 1952 : 245–269.

2460.—**Morgenthaler,** H. Ueber den Nukleinsäuregehalt im Ovar der Bienenkönigin. Verh. schweiz. naturf. Ges., Berne **132** (1952) : 157–158. [Hym.]

2461.—**Morgenthaler,** P. W. Blutuntersuchungen bei Bienen. Mitt. schweiz. ent. Ges., Berne **26** : 245–257, 10 figs. [Hym.]

2462.—**Mori,** H. Studies on the mechanism of reaction and the application of reduced air pressure in controlling some insect pests. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** : 111–144.

2463.—**Mori,** S. Influence of the population density of larva upon the emergence and the body length of *Drosophila melanogaster*. [In Japanese with English summary.] Zool. Mag., Tokyo **60** 1951 : 106–109, 4 figs. [Dipt.]

2464.—**Moriwaki,** D., **Okada,** T., **Ohba,** S. & **Kurokawa,** H. *Drosophila* species belonging to the *obscura* group found in Japan. [In Japanese with English summary.] Zool. Mag., Tokyo **61** 1952 : 283–287, 8 figs. [Dipt.]

2465.—**Morlan,** H. B. Host relationships and seasonal abundance of some southwest Georgia ectoparasites. Amer. Midl. Nat., Notre Dame **48** 1952 : 74–93.

2466.—**Morlan,** H. B. *Meringis rectus* (Siphonaptera, Hystrichopsyllidae), a new ectoparasite of kangaroo rats. J. Parasit., Lancaster, Pa. **39** : 605–607, 1 pl.

2467.—Morley, D. W. Ants. London, Collins xii & 179 pp. 15 pls. 14 figs. 27 maps. [Hym.]

2468.—Morley, D. W. The ant world. Pelican book A240. Harmondsworth, Middlesex, Penguin Books Ltd. 191 pp. 8 pls. 1 fig. [Hym.]

2469.—Morrell, R. *Papilio memnon agenor* L. in Singapore : some problems of mimicry. Malay. Nat. J., Kuala Lumpur **8** : 109–115, 1 pl. [Lep.]

Morrison, F. D. *see* Campau, Baker & Morrison.

Morrison, F. O. *see* Good, Morrison & Mankiewicz.

2470.—Morrison, J. P. E. The Berlese method of collecting small insects and other animals from leaf-mold, soil, moss, or other similar materials. Atoll Res. Bull., Washington no. 17 : 73.

2471.—Morse, W. J. & **Blickle,** R. L. A check list of the Trichoptera (caddis flies) of New Hampshire. Ent. News, Lancaster, Pa. **64** : 68–73, 97–102.

Mörzer Bruijns *see* Heerdt & Mörzer Bruijns.

2472.—Mosely, M. E. & **Kimmins,** D. E. The Trichoptera (caddis-flies) of Australia and New Zealand. London, Brit. Mus. (Nat. Hist.) [6] & 550 pp. 364 figs.

Moser, H. *see* Auerbach & Moser.

Moser, J. C. *see* Sacktor, Thomas, Moser & Bloch.

2473.—Moskovljević - Filipović, V. The development of the pharyngeal glands of the honey-bee in the normal bee colony. Bull. Acad. serbe Sci., Belgrade math. nat. Cl. (N.S.) **4** 1952 : 257–262. [Hym.]

2474.—Moucha, J. The distribution of *Pandoriana maja* Cr. in Central Europe (Lep. Nymphalidae). Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 386 : 69–88, 2 figs. 1 map.

2475.—Moucha, J. La distribution géographique de la *Leptidea morsei* Fent. en Europe (Lep. Pierididae). Bull. Soc. ent. Mulhouse **1953** : 1–4, 1 pl. 1 fig.

2476.—Moucha, J. *Pieris* (*Artogeia*) *mannii* Mayer in Mitteleuropa. Ent. NachrBl., Vienna **5** : 10–12. [Lep.]

2477.—Moucha, J. The importance of Asilid-flies in nature. [In Czech with English summary.] Přírod. Sborn. Ostrav. Kraje, Opava **13** 1952 : 549–553, 4 figs. [Dipt.]

2478.—Moucha, J. Beitrag zur Kenntnis der Feinde des Kartoffelkäfers. [In Czech with English summary.] Zool. ent. Listy, Brno **1** 1952 : 178–180. [Col., Neur.]

2479.—Moucha, J. & **Weiss,** D. Einiges über *Hyphantria cunea* Drury und *Spilosoma menthastri* Espenhan (Lepid.). Nachr. naturw. Mus. Aschaffenburg no. 39 : 57–62, 2 pls.

2480.—Mouchet, J. Revision du genre *Tabula* (Coléop. Elateridae) et description d'une espèce nouvelle de Madagascar. Nat. malgache, Tananarive **4** 1952 : 83–86, 5 figs.

2481.—Moure, J. S. Notas sôbre Colletidae sul-americanos (Hymenoptera-Apoidea). Dusenia, Curitiba **4** : 61–77.

2482.—Moure, J. S. Notas sobre Megachilidae de Bolivia, Perú y Chile I (Hymenoptera-Apoidea). Dusenia, Curitiba **4** : 113–124.

2483.—Mouro, J. Stridulation in the Queensland fruit-fly *Dacus* (*Strumeta*) *tryoni* Frogg. Aust. J. Sci., Sydney **16** : 60–62, 3 figs. [Dipt.]

2484.—Muesebeck, C. F. W. Three new reared Braconidae (Hymenoptera). Proc. ent. Soc. Wash. **55** : 149–151.

2485.—Mukerhji, S. & **Prasad,** V. G. Systematic study of *Pyrilla* spp. (Fulgoridae : Lophopinae) infesting sugarcane in India with notes on the morphological structure of the chitin in relation to the insecticidal action in it. Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts : 196–197. [Hem.]

2486.—Mukerji, D. & **Sinha,** R. N. Effect of food on the life history of the flour beetle, *Tribolium castaneum* Herbst. J. Kansas ent. Soc., Manhattan **26** : 118–124. [Col.]

2487.—Mukerji, S. On a new species of Scelionidae, *Scelio oviphagus* sp. nov. (Serphoidea Proctotrypoidea : Hymenoptera) parasitic on eggs of *Hieroglyphus nigrorepletus* I. Bol., in Ajmer (India). Indian J. Ent., New Delhi **14** (1952) : 203–213, 8 figs.

2488.—Mukerji, S. & **Chatterjee,** S. N. Permeability of insect cuticle to aqueous stains and vulnerability to insecticides. Nature, London **171** : 119–120.

2489.—Mulhern, T. D. Better results with mosquito light traps through standardizing mechanical performance. Mosquito News, Albany, N.Y. **13** : 130–133, 1 fig. [Dipt.]

Müller, E. *see* Zinkernagel & Müller.

2490.—Müller, F. P. Die Zwiebellaus, *Rhopalomyzus ascalonicus* (Doncaster), Vorkommen in Deutschland und Lebensweise. Z. angew. Ent., Berlin **35** : 187–196. [Hem.]

2491.—Muller, J. The geometric larva of *Lytrosis unitaria*. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 68–69. [Lep.]

2492.—Mulnard, J. La spermatogenèse double d'*Acanthoscelides obtectus* Say (Coléoptère Bruchide). Ann. Soc. zool. Belg., Louvain **82** (1951) 1952 : 399–445, 4 pls. 1 fig.

2493.—Munroe, E. G. *Chauliodes disjunctus* Walker : a correction, with the descriptions of a new species and a new genus (Megaloptera: Corydalidae). Canad. Ent., Ottawa **85** : 190–192, 4 figs.

2494.—Munroe, E. G. The *Karanasa* butterflies—a critical review. Lepid. News, New Haven **7** : 16–23.

2495.—Munsee, J. R. A preliminary report on biometrical studies on *Tropisternus striolatus* (LeConte) and *T. mexicanus* (Castelnau) (Coleoptera : Hydrophilidae). Proc. Indiana Acad. Sci., Indianapolis **62** : 207–210.

2496.—Munson, S. C. Some effects of storage at different temperatures on the lipids of the American roach and on the resistance of this insect to heat. J. econ. Ent., Menasha **46** : 657–666, 1 fig. [Orth.]

2497.—Munson, S. C. & **Gottlieb,** M. I. The differences between male and female American roaches in total lipid content and in susceptibility to DDT. J. econ. Ent., Menasha **46** : 798–802, 1 fig. [Orth.]

2498.—Murayama, J. On the Scolytid-beetles from Kiushu and Shikoku. [In Japanese with English summary.] Kontyû, Tokyo **18** 1950 : 96–103. [Col.] [Not seen.]

2499.—Murayama, J. The insect fauna of Mt. Ishizuchi and Omogo valley, Iyo, Japan. The Scolytidae and Platypodidae (Coleoptera). Trans. Shikoku ent. Soc. **3** : 144–165.

2500.—Murphy, D. H. A new littoral *Proisotoma* (Collembola : Isotomidae) from the Clyde area. Proc. R. ent. Soc. London (B) **22** : 103–105, 7 figs.

2501.—Murphy, D. R. Collection records of some Arizona mosquitoes (Diptera : Culicidae). Ent. News, Lancaster, Pa. **64** : 233–238.

Murthy *see* Venkatachala Murthy.

2502.—Musgrave, A. Seasonal occurrence of cicadas. Aust. Mus. Mag., Sydney **11** : 10–15, 2 figs. [Hem.]

2503.—Musgrave, A. J. & **Miller,** J. J. Some micro-organisms associated with the weevils *Sitophilus granarius* (L.) and *Sitophilus oryza* (L.). I. Distribution and description of the organisms. Canad. Ent., Ottawa **85** : 387–390, 4 figs. [Col.]

2504.—Muspratt, J. Research on South African Culicini (Diptera, Culicidae). 1. Descriptions of two new *Aëdes* (*Ochlerotatus*) Lynch Arribalzaga. J. ent. Soc. S. Afr., Pretoria **16** : 51–58, 1 fig.

2505.—Muspratt, V. M. Autumn migration of butterflies above Gavarnie, Htes Pyrenees, in 1952. Entomologist, London **86** : 211–215. [Lep.]

2506.—Muspratt, V. M. Some observations on *Vanessa cardui* L. and its migrations in 1952. Ent. Rec., Bishop's Stortford, Herts **65** : 169–174. [Lep.]

2507.—Müssbichler, A. Die Bedeutung äusserer Einflüsse und der Corpora allata bei der Afterweiselentstehung von *Apis mellifica*. Z. vergl. Physiol., Berlin **34** 1952 : 207–221, 3 figs. [Hym.]

2508.—Muta, G. Scales of butterflies as observed under electron microscope. [In Japanese.] Zool. Mag., Tokyo **58** 1949 : 146–150, 13 figs. [Lep.]

2509.—Mutuura, A. On the morphological characters of the larvae of Japanese Pyraustinae. [In Japanese with English summary.] Bull. Naniwa Univ., Osaka (B) **2** 1952 : 25–34, 33 figs. [Lep.]

2510.—Myers, C. M. & **Smith,** J. N. Formation of glucosides from phenols in locusts. Nature, London **172** : 32–33. [Orth.]

2511.—Nabours, R. K. & **Stebbins,** F. M. Dimorphism of wing-pronotal lengths and teratoses in biparental and partheno-propagation of the grouse locusts (Tetrigidae). J. exp. Zool., Philadelphia **124** : 1–29, 6 figs. [Orth.]

2512.—Nachtwey, R. I'instinct chez les insectes. [Translated from German.] Paris, Hachette 1952 221 pp. 24 pls. figs.

2513.—Naezer, H. W. & **Meer Mohr,** J. C. van der. Insects and *Eupatorium odoratum* L. (A preliminary note). Trop. Natuur, Bogor **33** : 59–60.

2514.—Nagasawa, S. On the growth in head capsule of larvae of the common cabbage butterfly, *Pieris rapae crucivora* Boisduval. Problems on the breeding of insects for biological assay of insecticides IV. [In Japanese with English summary.] Botyu-Kagaku, Kyoto **18** : 44–51, 2 figs. [Lep.]

Nagashima, E. *see* Aruga, Yoshitake & Nagashima.

2515.—Nagatomi, A. New *Rhagio*-species from Japan (1) (Diptera, Rhagionidae). Mushi, Fukuoka **24** 1952 : 7–12, 7 figs.

2516.—Nagatomi, A. Descriptions of two new *Atherix*-species from Japan (Diptera, Rhagionidae). Mushi, Fukuoka **25** : 9–12, 3 figs.

2517.—Nagatomi, A. A new species of the genus *Dialysis* Walker from Japan (Diptera, Rhagionidae). Mushi, Fukuoka **25** : 13–15, 2 figs.

Nájera *see* Díaz Nájera.

2518.—Nakagita, K. Ueber den Zusammenhang zwischen der gelegten Eierzahl und der Lebensdauer des Weibchens nach dem Legen. [In Japanese with German summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** : 191–198.

2519.—Nakane, T. New or little known Coleoptera from Japan and its adjacent regions. IX. Caraboidea II. Sci. Reps Saikyo Univ., Kyoto **1** : 93–102, 18 figs.

2520.—Nakane, T. & **Kurosawa,** Y. Description of a new species of genus *Figulus* (Coleoptera : Lucanidae). Bull. nat. Sci. Mus., Tokyo no. **33** : 110–111, 2 figs.

Nakane, T. *see* Chûjô & Nakane ; Nomura & Nakane.

Nakao, S. *see* Yosii & Nakao.

2521.—Nakao, Y. Action of irradiated cytoplasm on untreated chromosomes of the silkworm. Nature, London **172** : 625–626. [Lep.]

2522.—Nakao, Y. A new mutant in the silk-worm by nitrogen mustard. [In Japanese with English summary.] Zool. Mag., Tokyo **59** 1950 : 259, 1 fig. [Lep.]

2523.—Nakayama, S. Some environmental factors influencing the propagation of the rice weevil. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939 : 504–507. [Col.]

2524.—Narayanan, E. S., **Angalet,** G. W., **Subba Rao,** B. R. & **D'Souza,** G. I. A technique for mass-breeding of *Apanteles* n. sp. (Braconidae Hymenoptera). Curr. Sci., Bangalore **22** : 121, 1 fig.

2525.—Narayanan, E. S. & **Chatterji,** S. On a new macropterous species of *Triphleps* (Hemiptera, Heteroptera : Anthocoridae) predaceous on storage pests in India. Proc. zool. Soc. Bengal, Calcutta **6** : 121–123, 1 fig.

Nartinovit', A. *see* Vukasovit' & Nartinovit'.

Nascimento, L. P. *see* Ricciardi, Nascimento & Souza.

2526.—Nash, T. A. M. & **Page,** W. A. The ecology of *Glossina palpalis* in Northern Nigeria. Trans. R. ent. Soc. London **104**: 71–169, 7 pls. 15 figs. [Dipt.]

2527.—Nasir-ud-din, M. Mosquitoes breeding in tree-holes and bamboo stumps in Dacca (East Pakistan). Pakistan J. Hlth, Lahore **2** 1952: 110–112. [Dipt.]

2528.—Nast, J. Studies on Neotropical Cercopinae (Homoptera, Cercopidae). Bull. ent. Pologne, Wrocław **20** (1950) 1951: 55–74, 12 figs.

2529.—Nater, H. Vergleichend-morphologische Untersuchungen des äusseren Geschlechtsapparates innerhalb der Gattung *Drosophila*. Zool. Jb., Jena (Syst.) **81**: 437–486, 33 figs. [Dipt.]

2530.—Nath, V., **Bawa,** S. R., **Bhardwaj,** R. & **Gupta,** M. L. Sperm formation in certain Coleoptera with particular reference to chromosome numbers, acrosome and mitochondrial nebenkern. Res. Bull. E. Panjab Univ., Hoshiarpur (Zool.) no. 16 1951: 39–50, 5 pls.

2531.—Nath, V. & **Bhatia,** C. L. The sperm of *Lepisma domestica*. Res. Bull. E. Panjab Univ., Hoshiarpur Zool. no. 27: 33–43, 2 pls. [Thysanura.]

2532.—Nath, V. & **Rishi,** R. Spermateleosis in the dragon-fly *Sympetrum hypomelas* (Selys). Res. Bull. E. Panjab Univ., Hoshiarpur Zool. no. 31: 67–72, 2 pls. [Odon.]

Nath Sinha *see* Sinha.

2533.—Navajas, E. Notas elateridológicas. I—A autoria do gênero *Pyrophorus* e a validez de *P. nyctophanus* Germar, 1841 (Col. Elateridae). Arq. Biol. Tecn., Curitiba **7** 1952: 53–56, 6 pls.

Navajas, E. *see* Amaral & Navajas.

2534.—Nayar, K. K. Neurosecretion in *Iphita limbata* Stål. Curr. Sci., Bangalore **22**: 149, 1 fig. [Hem.]

2535.—Nayar, K. K. *Schizomyia macarangae*, a new pest of gall midge (Diptera: Itonididae). Proc. zool. Soc. Bengal, Calcutta **6**: 131–134, 1 fig.

Nègre, R. *see* Kocher & Nègre.

2536.—Neill, R. M. The use of the name *Libella*. Ent. mon. Mag., London **89**: 142–143. [Odon.]

2537.—Nelson, W. A. & **Slen,** S. B. Note on evaluating populations of the sheep ked, *Melophagus ovinus* (L.) (Diptera, Hippoboscidae), on feeder lambs. Canad. J. agric. Sci., Ottawa **33**: 620–621.

2538.—Neustetter, H. Ueber die Zucht einiger Geometriden. Ent. NachrBl., Vienna **5**: 23–26. [Lep.]

Neves *see* Baeta Neves.

2539.—Newman, L. H. Transformations of butterflies and moths. London & Melbourne, Ward, Lock & Co. 1952 256 pp. 8 col. pls. 146 photos. [Lep.]

2540.—Niblett, M. Notes on the emergences of Trypetidae. Ent.Rec., Bishop's Stortford, Herts **65**: 231–233. [Dipt.]

Niedl, J. *see* Havelka & Niedl.

2541.—Nielsen, E. T. & A. T. Field observations on the habits of *Aedes taeniorhynchus*. Ecology, Brooklyn, N.Y. **34**: 141–156, 6 figs. [Dipt.]

2542.—Nielsen, P. Diagnosen über fünf neue europäische Limoniinae (Dipt. Tipulidae). Z. wien. ent. Ges., Vienna **38**: 34–36, 5 figs.

2543.—Nietzke, G. Beiträge zur Biologie und Epidemiologie der Zwiebelminierfliege *Dizygomyza cepae* Her. Z. angew. Ent., Berlin **35**: 249–270, 16 figs. 2 maps. [Dipt.]

2544.—Niewiadomska, K. Contributions to the fauna of fleas (Aphaniptera) of Poland. [In Polish with English summary.] Fragm. faun. Mus. zool. polon., Warsaw **6**: 249–262.

Nijenhuis, E. D. *see* Dresden & Nijenhuis.

Nijenhuis, L. E. *see* Sobels & Nijenhuis.

2545.—Nijveldt, W. *Phaenobremia aphidiphora* Rübs. (Diptera, Itonididae) f.n.sp., een predator van *Aphis frangulae* Kltb. Ent. Ber., Amsterdam **14**: 193–195, 2 figs.

2546.—**Nijveldt,** W. Two new gall midges associated with reed (*Phragmites communis* Trin.) in the Netherlands. Ent. Ber., Amsterdam **14**: 282–285, 14 figs. [Dipt.]

2547.—**Nijveldt,** W. Enige gegevens over *Rhabdophaga triandraperda* Barnes (Diptera, Itonididae), f.n.sp., een galmug schadelijk voor de griendcultuur. Ent. Ber., Amsterdam **14**: 355–358, 5 figs.

2548.—**Nijveldt,** W. Galmuggen van cultuurgewassen III. Galmuggen, schadelijk voor de boomteelt in Nederland. Tijdschr. PlZiekt., Wageningen **59**: 137–142, 1 pl. [Dipt.]

Nijveldt, W. *see* Franssen, Nijveldt & Tjoa Tjien Mo.

2549.—[**Nikol'skaya,** M. N.] Chalcids of the fauna of the USSR (Chalcidoidea). [In Russian.] Opred. Faune SSSR, Moscow **44** 1952: 1–575, 592 figs. [Hym.]

2550.—**Ninomiya,** E. On the effect of pyrethrum emulsion on the movement of hover-fly. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** 1952: 44–49. [Dipt.]

2551.—**Nishijima,** Y. On the seasonal form of *Meromyza saltatrix* (Linné) (Diptera, Chloropidae) in Hokkaido. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** 1952: 22–28.

Nishijima, Y. *see* Kuwayama & Nishijima.

2552.—**Nisimura,** H. Physical properties of the blood of precocious silkworms. I–III. [In Japanese.] Zool. Mag., Tokyo **60** 1951: 115–116, 122–123, 151–153. [Lep.]

2553.—**Nisimura,** H. Studies on the growth of the silkgland in the silkworm (*Bombyx mori* L.) II. Effect of ligation of the body in the 4th or the 5th instar on the growth of silkgland. [In Japanese with English summary.] Zool. Mag., Tokyo **61** 1952: 127–132. [Lep.]

Nitta, S. *see* Fukuda & Nitta.

2554.—**Noeldner,** E. Moustiques rares ou peu connus d'Alsace. Encyl. ent., Paris (B) II Dipt. **11**: 5–45, 24 figs.

2555.—**Noirot,** C. Les soins et l'alimentation des jeunes chez les termites. Ann. Sci. nat., Paris Zool. (11) **14** (1952): 405–414. [Isopt.]

2556.—**Noirot,** C. Le polymorphisme social chez les termites et son déterminisme. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952: 103–116. [Isopt.]

2557.—**Nomura,** K. Two new moths from the island of Yakushima, South Kyushu. Annot. zool. jap., Tokyo **17** 1938: 433–435, 3 figs. [Lep.]

2558.—**Nomura,** K. On the arrangement of the wing-scales in the genus *Papilio*. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939: 529–534, 4 figs. [Lep.]

2559.—**Nomura,** S. & **Nakane,** T. On some new and remarkable species of Aphodiinae from Japan and Formosa. Kontyû, Tokyo **19** 1951: 35–47. [Col.] [Not seen.]

2560.—**Nordström,** F. Våra fjärilar och hur man känner igen dem. Stockholm, Albert Bonniers Förlag Del I (5th revd. edn.) 1950 76 pp. 10 pls. (6 col.), 17 figs.; Del II (4th edn.) 1952 61 pp. 9 pls. (5 col.), 18 figs.; Del III (2nd edn.) 1950 73 pp. 9 pls. (5 col.), 8 figs. [Lep.]

2561.—**Nordström,** F. Catalogus insectorum sueciae. Additamenta III. Macrolepidoptera. Opusc. ent., Lund **18**: 75–87.

2562.—**Norman,** T. Notes on the Lepidoptera of Assam II—Some additions to the Assam list, and other notes. J. Bombay nat. Hist. Soc. **51**: 515–517.

2563.—**Normand,** H. Nouveaux Curculionides de l'Afrique du Nord. Rev. franç. Ent., Paris **20**: 118–122, 1 pl. [Col.]

2564.—**Norton,** R. J. Inheritance of DDT tolerance in the house fly. Contr. Boyce Thompson Inst., Yonkers, N.Y. **17**: 105–126. [Dipt.]

2565.—**Nosek,** I. J. Contribution à la biocoenologie de la faune d'ipides dans les Beskydes. [In Czech with French summary.] Zool. ent. Listy, Brno **1** 1952: 95–110, 7 figs. 2 maps. [Col.]

2566.—Noskiewicz, J. Hyménoptères et Diptères des associations steppiques de Łysa Gorá près Złoczów (Abstract.) C.R. Soc. Sci. Wrocław **2** (1947): 73–74.

2567.—Noskiewicz, J. & Chudoba, S. Les supplements à la faune des Ichneumonides de la Pologne. [In Polish with French summary.] Bull. ent. Pologne, Wrocław **21** (1951) 1952: 30–60, 3 pls. [Hym.]

2568.—Novák, K. Das Trachealsystem der Larven unserer Trichopteren. [In Czech with German summary.] Acta Soc. zool. bohemoslov., Prague **16** 1952: 249–270, 14 figs.

2569.—Novicky, S. Vorläufige Beschreibung einiger Mymariden (Hymenoptera, Chalcidoidea), I. Teil. Ent. NachrBl., Vienna **5**: 13–15, 2 figs.

2570.—Nüesch, H. The morphology of the thorax of *Telea polyphemus* (Lepidoptera). I. Skeleton and muscles. J. Morph., Philadelphia, Pa. **93**: 589–608, 5 figs.

2571.—Nunberg, M. Key for the determination of the most important injurious forest insects. 2nd edn. [In Polish.] Warsaw, Inst. Badawczy Leśn. 1951 314 pp., 359 figs.

2572.—Nunberg, M. A new subfamily, genus and species of the family Platypodidae (Coleoptera). Ann. Mus. zool. polon., Warsaw **15**: 43–53, 2 pls.

2573.—Nunome, J. On the body temperature of the silkworm (*Bombyx mori* L.) during the moulting periods of the larva, pupa and imago. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **18**: 27–32, 1 fig. [Lep.]

2574.—Nuorteva, P. & M. Beitrag zur Kenntnis der Sägewespenfauna (Hym. Symphyta) von Vuohiniemi (Kirchsp. Hattula) in Südfinnland. Ann. ent. fenn., Helsinki **19**: 63–71, 2 figs.

2575.—Nuorteva, P. & Reinius, L. Incorporation and spread of C^{14}-labelled oral secretions of wheat bugs in wheat kernels. Ann. ent. fenn., Helsinki **19**: 95–104, 8 figs. [Hem.]

2576.—Nutting, W. L. Earwigs at light. Ent. News, Lancaster, Pa. **64**: 10. [Dermapt.]

2577.—Nutting, W. L. Observations on the reproduction of the giant cockroach, *Blaberus craniifera* Burm. Psyche, Cambridge, Mass. **60**: 6–14, 1 pl. [Orth.]

2578.—Nutting, W. L. The biology of *Euphasiopteryx brevicornis* (Townsend) (Diptera, Tachinidae), parasitic in the cone-headed grasshoppers (Orthoptera, Copiphorinae). Psyche, Cambridge, Mass. **60**: 69–81, 1 pl. 3 figs.

2579.—Nyholm, T. Zur Kenntnis der Copeognathenfauna Schwedens. 2. Die schwedischen Arten der Gattung *Trichadenotecnum* End. sensu Roesler. Ark. Zool., Stockholm (N.S.) **4**: 297–302, 5 pls. [Psocopt.]

2580.—Nyholm, T. Zur Kenntnis der Copeognathenfauna Schwedens. 3. Verzeichnis der bisher in Schweden gefundenen Copeognathen. Ent. Tidskr., Stockholm **74**: 108–115. [Psocopt.]

2581.—Nylander, U. Notiser om sällsyntare skalbaggar. Ent. Tidskr. Stockholm **74**: 81–85, 2 figs. [Col.]

2582.—Oakland, G. B. Determining sample size. Canad. Ent., Ottawa **85**: 108–113.

2583.—Obenberger, J. Monographie du genre *Lampra* Sol. (Col., Buprestidae) de la région paléarctique. Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 393: 279–374, 1 pl. 3 figs.

2584.—Obraztsov, N. A new species of *Hyalaethea* Butler and a key to the species of the genus (Lepidoptera, Ctenuchidae). Amer. Mus. Novit., New York no. 1630: 1–3.

2585.—Obraztsov, N. Ueber die Phaloniinen-Gattung *Propira* Durr. und einige andere ihr verwandte Gattungen (Lepidoptera, Tortricidae). Dtsch. ent. Z., Iris, Dresden **57** (1943) 1944: 66–73, 3 figs.

2586.—Obraztsov, N. *Djakonovia scutellana* sp. nova eine neue Tortricinen-Art aus der Dzharkent-Umgebung (Lepidoptera). Dtsch. ent. Z., Iris, Dresden **57** (1943) 1944: 73–76, 1 fig.

2587.—Obraztsov, N. Revision der palaearktischen Arten der Gattungen *Nycteola* Hb. und *Erschoviella* gen. nov. (Lepidoptera, Nycteolidae). Eos, Madrid **29**: 143–172, 12 figs.

2588.—Obraztsov, N. Systematische Aufstellung und Bemerkungen über die palaearktischen Arten der Gattung *Dichrorampha* Gn. (Lepidoptera, Tortricidae). Mitt. münch. ent. Ges., Munich **43**: 10–101, 50 figs.

2589.—Obraztsov, N. S. Classification of Holarctic species of the genus *Lobesia* Guenée, with description of *Paralobesia* gen. nov. (Lepidoptera, Tortricidae). Tijdschr. Ent., Amsterdam **96**: 85–94, 5 figs.

2590.—O'Brien, R. D. Occurrence of cholinesterase in *Tenebrio* and *Tribolium*. Nature, London **172**: 163–164. [Col.]

2591.—Ochs, G. Gyrinidae (Coleoptera Adephaga). Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. **16**: 1–56.

2592.—Ochs, G. Beschreibungen weiterer bisher unbekannter Arten aus der Gattung *Gyretes* (Col. Gyrinidae). Opusc. ent., Lund **18**: 141–150.

2593.—Ochs, G. Die Sunda-Gyriniden des Museum zoologicum bogoriense (Col., Gyrinidae). Treubia, Bogor **22**: 217–223.

2594.—Ochs, J. Coléoptères nouveaux ou peu connus de France. Bull. mens. Soc. linn. Lyon **22**: 4–6, 2 figs.

2595.—Oda, K. & **Iwasaki,** A. Studies on pine gall midge, *Cecidomyia brachyntera* Schwage ? I. Life history in Kuwamoto district. [In Japanese with English summary.] Bull. Govt. For. exp. Sta. Japan, Tokyo no. **59**: 79–84, 5 pls. [Dipt.]

2596.—Oettingen, H. von. Beiträge zur Systematik und Biologie einiger Thysanopteren-Arten. 5. Eine neue *Thrips*-Art aus Mitteldeutschland. Beitr. Ent., Berlin **3**: 164–165, 3 figs.

2597.—O'Farrell, A. F. & **Stock,** A. Regeneration and the moulting cycle in *Blattella germanica* L. I. Single regeneration initiated during the first instar. Aust. J. biol. Sci., Melbourne **6**: 485–500, 1 pl. 8 figs. [Orth.]

Offhaus, K. *see* Fröbrich & Offhaus.

2598.—Oftedal, P. The histogenesis of a new tumor in *Drosophila melanogaster*, and a comparison with tumors of five other stocks. Z. indukt. Abstamm.-u. VererbLehre, Berlin **85**: 408–422, 7 figs. [Dipt.]

2599.—Ogaki, M., **Kaji,** S. & **Tanaka,** E. A study on facet-forming substances in *Drosophila melanogaster*. [In Japanese with English summary.] Zool. Mag., Tokyo **62**: 245–249, 4 figs. [Dipt.]

2600.—Ogaki, M. & **Tsukamoto,** M. Genetical analysis of DDT-resistance in some Japanese strains of *Drosophila melanogaster*. [In Japanese with English summary.] Botyu-Kagaku, Kyoto **18**: 100–104, 1 fig. [Dipt.]

2601.—Ogaki, M. & **Yagi,** H. Phenocopy production by photodynamic action in *Drosophila melanogaster*. [In Japanese with English summary.] Zool. Mag., Tokyo **62**: 427–431, 1 fig. [Dipt.]

Ogaki, M. *see* Kaji & Ogaki; Tsukamoto & Ogaki.

Ohba, S. *see* Moriwaki, Okada, Ohba & Kurokawa.

2602.—Ohbayashi, K. Eine neue *Molorchus*-Art aus Japan (Col. Ceramb.). Ent. Arb., Munich **4**: 13.

2603.—Ohgushi, R. Ecological notes on *Epipomponia nawai* (Dyar), a parasite of cicada in Japan (Lepidoptera: Epipyropidae). Trans. Shikoku ent. Soc. **3**: 185–191, 6 figs.

2604.—Ohmachi, F. & **Matsuura,** I. Observations and experiments on four types in the life history of the Gryllodea. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951: 104–110. [Orth.]

2605.—Ohnesorge, B. Der Einfluss von Geruchs- und Geschmacksstoffen auf die Wahl der Frasspflanzen beim grossen braunen Rüsselkäfer *Hylobius abietis* L. Beitr. Ent., Berlin **3**: 437–468, 9 figs. [Col.]

2606.—Ohnesorge - Humperdinck, I. Beobachtungen an Kopfdrüsen der Honigbiene. Naturwissenschaften, Berlin **40**: 61. [Hym.]

2607.—Oiticica Filho, J. Nota sôbre a fêmea de *Bathyphlebia eminens* (Dognin, 1891) (Lepidoptera, Citheroniinae). Rev. brasil. Biol., Rio de Janeiro **13** : 271–274, 4 figs.

2608.—Oiticica Filho, J. *Dirphia dalcyra*, nova espécie (Lepidoptera, Hemileucidae). Rev. brasil. Biol., Rio de Janeiro **13** : 381–388, 11 figs.

2609.—Okada, T. Two new species of Thaumaleidae, an unrecorded family of Diptera, Nematocera from Japan. Annot. zool. jap., Tokyo **17** 1938 : 388–394, 10 figs.

2610.—Okada, T. *Clinotanypus* (Diptera, Tendipedidae) from Tokyo and its vicinities. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939 : 573–576, 2 figs.

Okada, T. *see* Moriwaki, Okada, Ohba & Kurokawa.

2611.—Okay, S. Formation of green pigment and colour changes in Orthoptera. Bull. ent. Res., London **44** : 299–315, 1 fig.

2612.—Oldroyd, H. A new Nycteribiid (Diptera) from Nigeria. Proc. R. ent. Soc. London (B) **22** : 59–60, 5 figs.

2613.—Oliveira, S. J. de. Sôbre a presença do gênero *Clinotanypus* Kieffer, 1913, na região neotrópica com a descrição de duas espécies novas (Diptera, Chironomidae). Rev. brasil. Biol., Rio de Janeiro **13** : 275–282, 4 figs.

2614.—Omer-Cooper, J. Some new species of Dytiscidae (Coleoptera) from the Cape Province of South Africa. Proc. R. ent. Soc. London (B) **22** : 23–31, 6 figs.

2615.—Omura, T. On the multipolar spindle found in follicle cells of the testis of *Diestrammena japonica* Karny (an Orthopteran). [In Japanese with English summary.] Zool. Mag., Tokyo **59** 1950 : 112–115, 1 fig.

2616.—Omura, T. Some observations of egg-laying in the double fertilization of silkworm. [In Japanese.] Zool. Mag., Tokyo **60** 1951 : 68–69, 1 fig. [Lep.]

2617.—Ondraschek, H. Vererbungsstudien an *Aphiochaeta xanthina* Speis (Phoridae). Z. indukt. Abstamm.- u. VererbLehre, Berlin **85** : 347–353. [Dipt.]

2618.—Ono, R. Resistance to ethanol of the silkworm egg. [In Japanese with English summary.] Zool. Mag., Tokyo **59** 1950 : 260–263. [Lep.]

2619.—Opheim, M. Notes on the genus *Pyrgus* Hb. (Lep., Gryp.). Astarte, Tromsø no. 4 : 1–13, 6 figs.

2620.—Orrego, O. S. Experimentos fototrópicos con escarabeidos chilenos. Agric. tecn., Chile **13** : 40–47. [Col.]

2621.—Ortiz, I. Sobre dos nuevos machos del género *Phlebotomus* (Diptera, Psychodidae). Rev. Sanid. Asist. soc., Caracas **17** 1952 : 153–158, 1 fldg pl.

2622.—Ortiz, I. Entomología médica. Los insectos del género *Leptoconops* Skuse, 1889 (Diptera, Ceratopogonidae) en Venezuela.—Descripción de una nueva especie : *Leptoconops* (*L.*) *venezuelensis* y redescripción de la hembra de *Leptoconops* (*L.*) *torrens* (Townsend, 1893). Rev. Sanid. Asist. soc., Caracas **17** 1952 : 163–170, 2 pls.

2623.—Ortiz, I. Nota sobre la presencia en Venezuela de un nuevo Ceratopogónido hematófago : *Lasiohelea stylifer* (Lutz, 1913) (Diptera-Nematocera). Rev. Sanid. Asist. soc., Caracas **17** 1952 : 241–244, 7 figs.

2624.—Ortiz, I. Apuntes en Ceratopogonidae (Diptera, Nematócera). III.—Sobre una nueva especie de *Monohelea* Kieffer, 1917 (*Monohelea ocumare* n. sp.). Rev. Sanid. Asist. soc., Caracas **17** 1952 : 253–256, 1 pl.

2625.—Ortiz, I. & Mirsa, M. *Culicoides* de Venezuela.—Redescripción de 10 especies con la descripción de algunos sexos no conocidos. Rev. Sanid. Asist. soc., Caracas **17** 1952 : 257–279, 13 pls. [Dipt.]

Ortiz, I. *see* Mirsa & Ortiz ; Pifano C. & Ortiz.

Osanai, M. *see* Umeya & Osanai.

2626.—Oshima, C. Studies on the laboratory populations of *Drosophila virilis*. Evolution, Lancaster, Pa. **7**: 187–197, 3 figs. [Dipt.]

2627.—Ossiannilsson, F. Catalogus insectorum sueciae. Additamenta VII. Hemiptera Heteroptera. VIII. Hemiptera Homoptera Auchenorrhyncha. Opusc. ent., Lund **18**: 101–108. [Hem.]

2628.—Ossiannilsson, F. *Psallus* (*Hylopsallus*) *wagneri* n. sp. A new Mirid (Hem. Heteropt.) from Sweden. Opusc. ent., Lund **18**: 122–123, 5 figs.

2629.—Ossiannilsson, F. Three new Swedish Aphids (Hem. Hom.) with description of a new genus and a new subgenus. Opusc. ent., Lund **18**: 233–238, 3 figs.

2630.—Ossiannilsson, F. On the music of some European leafhoppers (Homoptera Auchenorrhyncha) and its relation to courtship. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 139–142.

2631.—Östlund, E. Adrenaline, noradrenaline and hydroxytyramine in extracts from insects. Nature, London **172**: 1042–1043, 1 fig.

2632.—Otuka, M., **Santa,** H. & **Suto,** D. Studies on the oxygen consumption of the egg and pupal stages of the cabbage armyworm (*Barathra brassicae* L.). [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8**: 135–140, 3 figs. [Lep.]

Otuka, M. *see* Matsumoto, Santa & Otuka.

2633.—Ouchi, M. On the oxygen consumption of the pupae of *Chaetodacus ferrugineus* var. *dorsalis*. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939: 491–495, 1 fig. [Dipt.]

2634.—Overlaet, F. G. Formes nouvelles ou peu connues de Nymphalides africains. Ann. Mus. Congo belg., Tervuren (Sér. 8°) Sci. zool. **14** 1952: 1–50, 9 figs. [Lep.]

2635.—Overlaet, F. G. Essais de définition de l'instinct. Bull. Ann. Soc. ent. Belg., Brussels **89**: 312–319.

2636.—Owen, D. F. Ecology and distribution of the Satyridae in West Kent. London Naturalist **1952**: 13–44, 4 figs. 7 maps. [Lep.]

2637.—Ozeki, K. Mechanism of ovarian maturation in the earwig. [In Japanese with English summary.] Zool. Mag., Tokyo **58** 1949: 232–236. [Dermapt.]

2638.—Paclt, J. Systematisches Verzeichnis der in Mitteleuropa als Forstschädlinge auftretenden Schmetterlinge. Beitr. Ent., Berlin **3**: 1–29. [Lep.]

2639.—Paclt, J. *Polychrosis vitisana* (Jacq. 1788) comb. nov., or new synonymy in an important pest of the grape-vine (Lepidoptera Tortricidae). Ent. Ber., Amsterdam **14**: 379.

2640.—Paclt, J. A note on the Orient genus *Bakerella* Womersley (Apterygota, Thysanura). Insecta Matsum., Sapporo **18** 1952: 30.

2641.—Paclt, J. & **Schwarz,** R. Sind die Raupen der *Hyphantria cunea* (Insecta Lepidoptera) im Stande Cellulose zu verdauen? [In Czech with German summary.] Biol. Sborn. slovensk. Akad., Bratislava **7** 1952 no. 1–2: 143–149, 4 figs.

Page, W. A. *see* Nash & Page.

2642.—Pagés, J. Diploures Japygidés de Basse-Egypte. Bull. Mus. Hist. nat., Paris (2) **25**: 97–102, 24 figs., 169–172, 12 figs. [Thysanura.]

2643.—Pagés, J. Diploures Projapygidés de Côte d'Ivoire. Bull. Mus. Hist. nat., Paris (2) **25**: 489–494, 11 figs. [Thysanura.]

2644.—Pagés, J. Projapygidae (Diplura) d'Afrique septentrionale. Bull. Soc. zool. Fr., Paris **77**: 475–484, 16 figs. [Thysanura.]

2645.—Pagés, J. The 3rd Danish Expedition to Central Asia. Zoological results 8. Japygidae (Insecta) de l'Afghanistan. Vidensk. Medd. dansk naturh. Foren. Kbh. **115**: 159–167, 2 figs. [Thysanura.]

2646.—Painter, R. H. The role of nutritional factors in host plant selection. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 101–105.

Painter, R. H. *see* Luginbill & Painter.

2647.—Paissanidis, S. E. Nuevo parásito en los manzanares de Río Negro ("*Eulia loxonephes*"). Rev. argent. Agron., Buenos Aires **19** 1952: 185–186. [Lep.]

Palacios *see* Martínez Palacios.

2648.—Pallister, J. C. The leaf beetles of north central Mexico collected on the David Rockefeller Mexican Expedition (Coleoptera, Chrysomelidae). Amer. Mus. Novit., New York no. 1623: 1–95, 17 figs.

2649.—Palm, T. Anteckningar om svenska skalbaggar. VII. Ent. Tidskr., Stockholm **74**: 8–23, 1 fig. [Col.]

2650.—Palm, T. Om uppfödning och kläckning av trädskalbaggar. Ent. Tidskr., Stockholm **74**: 51–60. [Col.]

2651.—Palm, T. Äro *Batrisodes adnexus* Hampe och *venustus* Reichb. skilda arter? (Col. Pselaphidae). Ent. Tidskr., Stockholm **74**: 61–63, 4 figs.

2652.—Palm, T. Anmärkningar till några svenska *Pissodes*-arter (Col. Curculionidae). Ent. Tidskr., Stockholm **74**: 121–123.

2653.—Palm, T. *Leptura sandoeensis* n. sp., eine neue Bockkäferart aus Schweden (Col., Cerambycidae). Ent. Tidskr., Stockholm **74**: 124–129, 5 figs.

2654.—Palm, T. För Sverige nya Coleoptera. XIII. Ent. Tidskr., Stockholm **74**: 130–136, 10 figs.

2655.—Palm, T. Om skalbaggsfaunan på en skånsk strandängslokal (Col.). Opusc. ent., Lund **18**: 59–63, 1 fig.

2656.—Palm, T. *Eremotes elongatus* (Gyll.) und *E. nitidipennis* (Thoms.) (Col. Curculionidae). Opusc. ent., Lund **18**: 201–204, 3 figs.

2657.—Palm, T. *Phymatodes pusillus* F., en ny svensk cerambycid (Col.). Opusc. ent., Lund **18**: 240–242, 3 figs.

2658.—Palmer, M. A. Aphids of the Rocky Mountain region. Including primarily Colorado and Utah, but also a bordering area composed of southern Wyoming, southeastern Idaho and northern New Mexico. The aphids of this region include most of the economic species known to occur in the United States or even in North America. [Lafayette, Ind., Purdue Univ. | Thomas Say Foundation vol. V 1952 [4+] 452 pp. 8 col. pls. 455 figs. [Hem.]

2659.—Palmqvist, S. Skånska skalbaggsfynd (Col.) II. Opusc. ent., Lund **18**: 37–47.

2660.—[Pankratova, V. Ya.] Tendipedid larvae in reservoirs of the region of the state forest strip, Mt. Vishnevaya—Caspian Sea. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952: 279–292, 2 figs. [Dipt.]

Pant, G. D. *see* Roonwal, Mathur, Bhasin, Singh, Pant, Chandra, Katiyar & Mathur.

2661.—Pant, N. C. Nutritional requirements of *Trogoderma granaria* Everts (Coleoptera, Dermestidae). Curr. Sci., Bangalore **22**: 379–380, 2 figs.

2662.—Papp, C. S. Neubeschreibungen über einige Chrysomeliden aus Südamerika (Coleopt.). Acta zool. lilloana, Tucuman **10** 1952: 291–298, 6 figs.

2663.—Papp, C. S. & **Varga,** G. A. Ueber die Cryptorhynchinen-Gattung *Conotrachelus* (Coleoptera: Curculionidae). 2. Beitrag zur Förderung der wissenschaftlichen Zusammenarbeit mit dem neugegründeten "International Hylean Amazon Institute" in Manaos, Brasilien. Portug. Acta biol., Lisbon (B) **3** 1951: 205–227.

2664. Pappas, G. D. & **Ruppel,** R. F. A method of obtaining axenic larvae of *Anopheles quadrimaculatus*. Exp. Parasit., New York **2**: 147–149. [Dipt.]

2665.—Paramonov, S. J. Notes on Australian Diptera (IX–XII). Ann. Mag. nat. Hist., London (12) **6**: 195–208, 2 pls. 3 figs.

2666.—Paramonov, S. J. A review of Australian Nemestrinidae (Diptera). Aust. J. Zool., Melbourne **1**: 242–290, 5 figs.

2667.—Paramonov, S. J. A review of Australian Apioceridae (Diptera). Aust. J. Zool., Melbourne **1**: 449–537.

2668.—Paramonov, S. J. A new species of *Clytocosmus* (Tipulidae). Encycl. ent., Paris (B) II Dipt. **11**: 51–55.

2669.—Paramonov, S. J. Uebersicht der palaearktischen *Toxophora*-Arten (Bombyliidae). Encycl. ent., Paris (B) II Dipt. **11**: 93–117.

2670.—Paramonov, S. J. A note on the group *Ligyra* (*Hyperalonia* olim) *venus* Karsch (Diptera: Bombyliidae). Proc. R. ent. Soc. London (B) **22**: 220–222.

2671.—Pardi, L. Dominazione e gerarchia in alcuni invertebrati. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952: 183–197.

2672.—Parés, R. Application of nigrosine to the study of the salivary chromosomes. Nature, London **172**: 1151–1152, 2 figs. [Dipt.]

2673.—Park, O. New or little known Pselaphid beetles of the United States, with observations on taxonomy and evolution of the family Pselaphidae. Bull. Chicago Acad. Sci. **9**: 249–282, 5 pls. [Col.]

2674.—Park, O. Discrimination of genera of Pselaphid beetles of the United States. Bull. Chicago Acad. Sci. **9**: 299–330. [Col.]

2675.—Park, O. An European Pselaphid beetle collected in New York. Nat. Hist. Misc., Chicago no. **117**: 1–3. [Col.]

2676.—Park, O. A new genus of Pselaphid beetles from the Everglades. Nat. Hist. Misc., Chicago no. **121**: 1–4, 1 fig. [Col.]

2677.—Park, O., **Auerbach,** S. & **Wilson,** M. Pselaphid beetles of an Illinois prairie: The population. Ecol. Monogr., Durham, N.C. **23**: 1–15, 8 figs. [Col.]

2678.—Parker, H. L. Miscellaneous notes on South American Dipterous parasites. Boll. Lab. Ent. agr. Portici **12**: 45–73, 7 pls.

2679.—Parker, H. L., **Berry,** P. A. & **Silveira Guido,** A. Host-parasite and parasite-host lists of insects reared in the South American laboratory during the period 1940–1946. Rev. Asoc. Ing. agron., Montevideo no. 92 (1951): 1–161.

2680.—Parmenter, L. Additions to the British list of Agromyzidae (Dipt.). Ent. mon. Mag., London **89**: 178–180.

2681.—Parmenter, L. The hoverflies (Syrphidae). Ent. Rec., Bishop's Stortford, Herts **65** 1953: 122–126, 154–159, 185–190, 234–238. [Dipt.]

2682.—Parrot, L. Notes sur les Phlébotomes. LXVII.—Les "papilles" des antennes. Arch. Inst. Pasteur Algér., Algiers **31**: 110–118, 2 figs. [Dipt.]

2683.—Parrott, A. W. The identity of two common species of *Ichneumon*-wasps. N.Z. Ent., Wellington **1** no. 3: 15–16. [Hym.]

2684.—Parrott, A. W. A new genus and species of Euphorinae from Australia (Hymenoptera: Braconidae) with a note on its feeding habits by B. B. Given, F.R.E.S. Proc. R. ent. Soc. London (B) **22**: 164–166, 1 fig.

2685.—Pašek, V. Beitrag zu einer Klassifikation der mitteleuropäischen Lachniden (Homoptera, Aphidoidea). [In Czech with German summary.] Acta Soc. zool. bohemoslov., Prague **17**: 149–177, 11 figs.

2686.—Pašek, V. Die tschechoslowakischen Lachniden (Homopt., Aphidoidea). [In Czech with German summary.] Biol. Sborn. slovensk. Akad., Bratislava **7** 1952 no. 5–6: 91–99.

2687.—Pašek, V. Some new Lachnids (Homopt., Aphidoidea) from Czechoslovakia I. Zool. ent. Listy, Brno **2**: 28–34, 15 figs.

2688.—Pašek, V. Eine neue Art der Gattung *Hoplocallis* Pint. 1952 aus der Südslowakei (Homopt., Aph.). [In Czech with German summary.] Zool. ent. Listy, Brno **2**: 193–196, 1 pl. 1 fig.

2689.—Pasquale, A. di. Su due nuovi alleli dello stesso locus del III cromosoma di *Drosophila melanogaster* Meig. R.C. Ist. lombardo, Milan Cl. Sci. mat. nat. **85** 1952: 241–248, 4 figs. [Dipt.]

Pasquale, A. di *see* **Barigozzi & Pasquale.**

2690.—Passonneau, J. V. & **Williams,** C. M. The moulting fluid of the Cecropia silkworm. J. exp. Biol., London **30** : 545–560, 2 figs. [Lep.]

2691.—Pasteels, J. Sur l'existence de races géographiques chez *Tenthredo arcuata* Forster Hym. Tenthred., Ann. Soc. zool. Belg., Louvain **82** (1951) 1952 : 341–352, 1 fig.

2692.—Pasteels, J. Argidae (Hymenoptera Tenthredinoidea). Explor. Parc nat. Albert, Miss. de Witte (1933–1935), Brussels fasc. 79 : 95–99, 5 figs.

2693.—Pasteels, J. Hymenoptera Tenthredinoidea. Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. 17 : 117–131, 18 figs.

2694.—Pasteels, J. Prodromes d'une faune des Tenthredinoïdea de l'Afrique noire.—I. Argidae. Mém. Soc. ent. Belg., Brussels **26** : 1–128, 269 figs. [Hym.]

2695.—Pastrana, J. A. Una especie nueva de *Glyphipterygidae* de la Argentina (Lepidoptera). Acta zool. Lilloana, Tucuman **12** (1951) 1952 : 519–522, 1 pl.

2696.—Patel, G. A. & Kulkarni, H. L. *Cerosaphis emblica* sp. nov. (Fam. Aphididae)—a new Aphid pest on *Emblica officinalis*. J. Bombay nat. Hist. Soc. **51** : 435–438, 1 pl. [Hem.]

2697.—Patel, N. G. & G. A. Host plants, distribution and abundance of thrips (Thysanoptera) of Bombay State. J. Bombay nat. Hist. Soc. **51** : 597–607.

Patel, R. C. *see* Kulkarny & Patel.

2698.—Paterson, H. E. A new species of the genus *Pulicliphora* Dahl (Diptera : Phoridae). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 3 : 61–67, 1 pl.

2699.—Paterson, H. E. & **Thompson,** P. M. Key to the Ethiopian species of the genus *Polyplax* (Anoplura), with descriptions of two new species. Parasitology, London **43** : 199–204, 12 figs.

2700.—Patočka, J. Beitrag zur Kenntnis der Lepidopteren in der Umgebung von Banská Stiavnica. [In Czech with German summary.] Biol. Sborn. slovensk. Akad., Bratislava **7** 1952 no. 3–4 : 147–154.

2701.—Patočka, J. Beachtenswertere Funde von Lepidopteren aus dem mittleren Waagtal. [In Czech with German summary.] Biologia, Bratislava **8** : 133–138.

2702.—Patočka, J. Die *Sarrothripus*-Arten als Schädlinge der Pappeln. [In Czech with German summary.] Zool. ent. Listy, Brno **2** : 76–88, 1 pl. 8 figs. [Lep.]

Patrizi, S. *see* Cerruti & Patrizi.

2703.—Patterson, E. K., **Dumnf,** M. E. & **Richards,** jr. A. G. Lipids in the central nervous system of the honey bee. Arch. Biochem., New York **7** 1945 : 201–210. [Hym.]

2704.—Paul, A. R. Life history of the pied shield bug, *Sehirus bicolor* L. (Hem., Cydnidae). Ent. mon. Mag., London **89** : 210–211.

2705.—Paulian, P. Les biotopes entomologiques des Iles Kerguelen. Entomologiste, Paris **9** : 33–42, 2 pls. 1 map.

2706.—Paulian, P. Notes biologiques sur le *Pringleophaga kerguelenensis* End. Rev. franç. Ent., Paris **20** : 45–47. [Lep.]

2707.—Paulian, R. Recherches sur les insectes d'importance biologique de Madagascar. I–IX. Mém. Inst. sci. Madagascar, Tananarive (A) **3** 1949 : 347–391, 3 pls. 29 figs.

2708.—Paulian, R. Recherches sur les insectes d'importance biologique à Madagascar. XII à XX. Mém Inst. sci. Madagascar (E) **3** : 1–27, 4 pls. 30 figs.

2709.—Paulian, R. Recherches sur le cycle biologique annuel en région tropicale. Nat. malgache, Tananarive **4** 1952 : 1–18, 16 figs.

2710.—Paulian, R. & **Pic,** M. Un Anobiide des *Phylica* de l'île Nouvelle Amsterdam. Rev. franç. Ent., Paris **20** : 43–45, 9 figs. [Col.]

Paulian, R. *see* Lepesme & Paulian.

Pavan, C. *see* Burla & Pavan.

2711.—Pavan, M. & **Bo,** G. Pederin, toxic principle obtained in the crystalline state from the beetle *Paederus fuscipes* Curt. Physiol. comp., The Hague **3** : 307–312, 3 pls. [Col.]

Pavan, M. *see* Ronchetti & Pavan.

Pavlovsky, O. *see* Dobzhansky & Pavlovsky.

2712.—**Pearce,** E. J. Are *Tychus ibericus* Mots., and *Bryaxis clavicornis* Panz. (Col., Pselaphidae) rightly included in the British list ? Ent. mon. Mag., London **89** : 273–274.

2713.—**Pearman,** J. V. A new generic form allied to *Sphaeropsocus* Hagen (Psocoptera, Pachytroctidae). Ent. mon. Mag., London **89** : 262.

2715.—**Pedersen,** N. & **Sørensen,** S. J. Sommerfugle på den fynske ogruppe. Fyns Flora og Fauna, Odense **2** 1948 : 3–96, 1 pl. [Lep.]

2716.—**Peffly,** R. L. Crosses and sexual isolation of Egyptian forms of *Musca domestica* (Diptera, Muscidae). Evolution, Lancaster, Pa. **7** 65–75.

2717.—**Pekarsky,** P. *Parnassius apollo* L. in den Karpaten. Z. wien. ent. Ges., Vienna **38** : 106–110. [Lep.]

2718.—**Peking,** F. & R. Ueber Ei, Raupe und Zucht von *Xanthoecia flavago* Schiff. (=*Gortyna ochracea* Hbn.). Ent. Z., Frankfurt a. M. **62** : 185–188, 2 figs. [Lep.]

2719.—**Peking,** H. Ei und Eiablage von *Hemistola chrysoprasaria* Esp. (*Euchloris vernaria* Hb.). Ent. Z., Frankfurt a. M. **62** : 167–168, 2 figs. [Lep.]

2720.—**Peklo,** J. Microorganisms or mitochondria ? Science, New York **118** : 202–206, 4 figs.

2721.—**Pelikán,** J. A list of Czechoslovak Thysanoptera. [In Czech with English summary.] Zool. ent. Listy, Brno **1** 1952 : 185–195.

Pelt *see* Van Pelt.

2722.—**Peltonen,** O. Schmetterlingsbeuten im Sommer 1952 in Mäntyharju (ES). [In Finnish with German summary.] Ann. ent. fenn., Helsinki **19** : 87–89. [Lep.]

2723.—**Pendergrast,** J. G. A projection on the maxillary plate in some Acanthosominae (Hem., Pentatomidae). Ent. mon. Mag., London **89** : 215, 1 fig.

2724.—**Pendergrast,** J. G. Setose areas on the abdomen in females of some Acanthosominae (Heteroptera, Pentatomidae). Entomologist, London **86** : 135–138, 3 figs. [Hem.]

2725.—**Pendergrast,** J. G. The genus *Rhopalimorpha* Dallas (Heteroptera, Pentatomidae). Rec. Auckland [N.Z.] Inst. **4** 1952 : 159–162, 4 figs.

2726.—**Pennak,** R. W. Freshwater invertebrates of the United States. New York. Ronald Press Co. ix + 769 pp. 470 figs. [Ins. pp. 488–666.]

2727.—**Pennak,** R. W. The larva of *Zaitzevia parvula* (Horn) (Coleoptera : Elmidae). Trans. Amer. micr. Soc., Columbus, Ohio **72** : 135–139, 1 pl.

2728.—**Penner,** L. R. & **Melnick,** J. L. Methods for following the fate of infectious agents fed to single flies. J. exp. Med., New York **96** 1952 : 273–280, 6 figs. [Dipt.]

2729.—**Percy,** Lord R. C. & H. E. & **Ridley,** M. W. The waterholes at Ijara, Northern Province, Kenya. J.E. Afr. nat. Hist. Soc., Nairobi **22** : 2–14, 4 pls. 3 figs.

2730.—**Perkins,** J. F. Notes on British Ichneumoninae with descriptions of new species (Hym. Ichneumonidae). Bull. Brit. Mus. (Nat. Hist.), London Ent. **3** : 103–176, 41 figs.

2731.—**Perlitsh,** M. & **Kelner,** A. The reduction by reactivating light of the frequency of phenocopies induced by ultraviolet light in *Drosophila melanogaster*. Science, New York **118** : 165–166. [Dipt.]

2732.—**Perron,** J. P., **Lafrance,** J. & **Hudon,** N. Notes on the behaviour of the adult of the onion maggot, *Hylemya antiqua* (Meig.) in captivity. Rep. Quebec Soc. Prot. Pl. **32–33** (1950–1951) [1953] : 144–148, 4 figs. [Dipt.]

Pessôa *see* Frota Pessôa.

2734.—**Peters,** W. Records of mosquitoes (Dipt., Culicidae) in the southern highlands of Tanganyika. II. Ent. mon. Mag., London **89** : 65–67.

2735.—Petersen, B. Einige Bemerkungen zum *Pieris-napi-bryoniae*-Problem. Ent. NachrBl., Vienna **5**: 31–35, 45–50. [Lep.]

2736.—Petersen, B. Studies on geographic variation of allometry in some European Lepidoptera. Zool. Bidr., Uppsala **29** 1952 (preprint 1949): 1–38, 8 figs.

2737.—Petersen, B. & **Weber,** R. A comparison between growth ratio and geographic variation of allometry in *Omocestus viridulus* L. ♀ (Orthoptera). Zool. Bidr., Uppsala **29** 1952 (preprint 1949): 39–43, 5 figs.

2738.—Petersen, G. Taxonomie und Verbreitung der "Kornmotten" (Lepidoptera: Tineidae). Beitr. Ent., Berlin **3**: 577–600, 3 pls. 3 figs.

2739.—Peterson, A. A manual of entomological techniques. 7th edn. Ann Arbor, Michigan, Edwards Bros. v & 367 pp. 182 pls.

Peterson, B. V. *see* Grundmann & Peterson.

2740.—Petit, C. Les variations du coefficient d'isolement sexuel entre deux souches isogéniques de *Drosophila melanogaster*. C.R. Acad. Sci., Paris **237**: 203–204. [Dipt.]

Petrella, L. *see* Barigozzi & Petrella.

2741.—[Petrik, A. & **Yovanit',** M.] Contribution to the knowledge of Noctuidae in Voyvodina. [In Serbian with English summary.] Zborn. Matitse Srpske, Novi Sad Ser. prirod. Nauka **3** 1952: 119–132. [Lep.]

2742.—[Petrik, Ts.] A case of deviation in the normal morphological structure of the angoumois grain moth's ovaria. [In Serbian with English summary.] Zborn. Matitse Srpske, Novi Sad Ser. prirod. Nauka **2** 1952: 39–62, 14 figs. [Lep.]

2743.—Petzsch, H. *Cimex lectularius* L. als Parasit verschiedener warmblütiger Zoo-Tiere, insbesondere von gehaltenen Kleinsäugetiere. Beitr. Ent., Berlin **3**: 404–405. [Hem.]

2744.—Peus, F. Flöhe. (Die neue Brehm-Bücherei Heft 98.) Leipzig, Geest and Portig, 43 pp. 31 figs. [Siphonapt.]

2745.—Peyerimhoff, P. de. Caractères biogéographiques du Fezzan (d'après les Coléoptères). C.R. Soc. Biogéogr., Paris **23** 1946: 30–32.

2746.—Pfaff, W. Untersuchungen über den Aufbau der Insektenkutikula und den Eindringungsmechanismus des Kontaktinsektizides E 605. Höfchenbr., Leverkusen **5** (1952): 93–135, 23 pls. (4 col.) 14 figs.

2747.—Pfaff, W. Ueber den Feinbau der Fibrillen aus der Kutikula von *Periplaneta americana* L. Naturwissenschaften, Berlin **40**: 386–387, 1 fig. [Orth.]

2748.—Pfister, H. Beobachtungen an einigen in Bayern vorkommenden Pterophoriden (Lep.). NachrBl. bayer. Ent., Munich **2**: 44–47.

2749.—Pflugfelder, O. Entwicklungsphysiologie der Insekten. Leipzig, Akademische Verlagsgesellschaft Geest & Portig K.-G. 1952 x & 332 pp. 126 figs.

2750.—Philip, C. B. The genus *Chrysozona* Meigen in North America (Diptera Tabanidae). Proc. ent. Soc. Wash. **55**: 247–251.

2751.—Philipson, G. N. A method of rearing Trichopterous larvae collected from swift-flowing waters. Proc. R. ent. Soc. London (A) **28**: 15–16, 1 fig.

2752.—Philipson, G. N. The larva and pupa of *Hydropsyche instabilis* Curtis (Trichoptera, Hydropsychidae). Proc. R. ent. Soc. London (A) **28**: 17–23, 3 figs.

2753.—Philipson, G. N. The larva and pupa of *Wormaldia subnigra* McLachlan (Trichoptera: Philopotamidae). Proc. R. ent. Soc. London (A) **28**: 57–62, 4 figs.

2754.—Phillips, N. R. Fauna of a decaying log and the life-cycle of *Helops caeruleus* (L.) (Col., Tenebrionidae). Entomologist. London **86**: 226–228.

2755.—Pic, M. Coléoptères nouveaux du Kilimanjaro. Ann. Mag. nat. Hist., London (12) **6**: 77–78.

2756.—Pic, M. Melandryidae (Col. Hétéromères) nouveaux. Ann. Mag. nat. Hist., London (12) **6**: 333–336.

2757.—Pic, M. Neue Cleriden aus der Sammlung des Deutschen Entomologischen Instituts (Coleoptera). Beitr. Ent., Berlin **3** : 320–322.

2758.—Pic, M. Coléoptères nouveaux de Fernando-Poo. Bull. Inst. franç. Afr. noire, Dakar **15** : 152–170, 28 figs.

2759.—Pic, M. Nouveaux Coléoptères africains. Bull. Inst. franç. Afr. noire, Dakar **15** : 495–506.

2760.—Pic, M. Contribution à l'étude de la zone d'innondation du Niger (mission G. Remaudière, 1950) II. Coléoptères Malacodermoidea. Bull. Inst. franç. Afr. noire, Dakar **15** : 1529–1534, 1 fig.

2761.—Pic, M. Coléoptères divers nouveaux, du Congo belge. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 14 : 1–7.

2762.—Pic, M. Quatre nouveaux Coléoptères du Maroc. C.R. Soc. Sci. nat. Maroc, Rabat **1953** : 18–20.

2763.—Pic, M. Coléoptères nouveaux de la région marocaine. C.R. Soc. Sci. nat. Maroc, Rabat **1953** : 61–63.

2764.—Pic, M. Nouveaux Malacodermes du Maroc (Coléoptères). C.R. Soc. Sci. nat. Maroc, Rabat **1953** : 117.

2765.—Pic, M. Expedition to the Gughé Highlands (Southern Ethiopia), 1948–49 : Coleoptera, Dascillidae : une nouvelle espèce du genre *Eubrianax*. J. Linn. Soc. London **42** : 293–294, 2 figs.

2766.—Pic, M. Nouveaux Coléoptères de Madagascar. Mém. Inst. sci. Madagascar, Tananarive (A) **3** 1949 : 341–345.

2767.—Pic, M. Coléoptères nouveaux de Madagascar. Mém. Inst. sci. Madagascar, Tananarive (E) **3** : 253–278.

Pic, M. *see* Paulian & Pic.

2768.—Picard, J. Biogéographie des Lépidoptères Hesperiidae des îles de Formosa et de Hainan. C.R. Soc. Biogéogr., Paris **29** 1952 no. 250 : 68–72, 3 figs.

2769.—Pichler, F. Beitrag zur Kenntnis der tympanalen Muskulatur der Feldheuschrecken. Zool. Anz., Leipzig **150** : 12–15, 2 figs. [Orth.]

2770.—Pickford, R. A two-year life-cycle in grasshoppers (Orthoptera : Acrididae) overwintering as eggs and nymphs. Canad. Ent., Ottawa **85** : 9–14, 1 fig.

2771.—Piechocki, R. Beiträge zur Kenntnis der Hasenlaus, *Haemodipsus lyriocephalus* (Burmeister 1839). Wiss. Z. Univ. Halle **2** : 931–938, 13 figs. [Anopl.]

Piechocki, R. *see* Eichler & Piechocki.

2772.—Pielou, D. P. & Glasser, R. F. Survival of *Macrocentrus ancylivorus* Roh., a parasite of the oriental fruit moth, on different concentrations of various sugar solutions. Canad. J. Zool., Ottawa **31** : 121–124, 1 fig. [Hym.]

2773.—Piepho, H. Ueber die Lenkung der Insektenmetamorphose durch Hormone. Verh. dtsch. zool. Ges., Berlin **1951** 1952 : 62–76, 5 figs.

2774.—Pifano C., F. & Ortiz, I. Representantes venezolanos del género *Phlebotomus* Rondani, 1840 (Diptera, Psychodidae). Rev. Sanid. Asist. soc., Caracas **17** 1952 : 135–151, 1 fldg. pl.

2775.—Pifano C., F. & Ortiz, I. *Cavernicola pilosa* Barber, 1937 (Hemiptera-Heteroptera : Triatominae) su presencia en Venezuela. Rev. Sanid. Asist. soc., Caracas **17** 1952 : 245–248, 2 fldg. pls.

2776.—Pilleri, G. Monographie der Untergattung *Calamosternus* Motschulsky (Scarabeidae- Aphodiinae). I. Beitrag. Eos, Madrid **29** : 101–113, 7 pls. [Col.]

Pimentel, D. *see* Klock, Pimentel & Stenburg.

2777.—Pinhey, E. C. G. Butterflies of Rhodesia with a short introduction to the insect world. Salisbury, Rhodesia sci. Ass. 1949 vi & 208 pp. 21 pls. (15 col.) 13 figs. [Lep.]

2778.—Pinker, R. Studien über die *Cidaria olivata* Schiff.-Gruppe. Larentiinae. *Cidaria* Tr. Subgenus : *Calostigia* Hbn. Abt. A. Z. wien. ent. Ges., Vienna **38** : 31–33, 4 figs. [Lep.]

2779.—Pinker, R. Erfahrungen mit *Gnophos operaria hoefneri* Rbl. Z. wien. ent. Ges., Vienna **38** : 152–154, 2 figs. [Lep.]

2780.—Pinker, R. Beobachtungen in den Julischen Alpen. Z. wien. ent. Ges., Vienna **38** : 177–181, 2 figs. [Lep.]

2781.—Pintera, A. *Hoplocallis ruperti* g. n., sp. n., new Aphid on oak. [In Czech with English summary.] Zool. ent. Listy, Brno **1** 1952 : 151–157, 2 figs. [Hem.]

Pintera, A. *see* Brčák & Pintera.

2782.—Pipkin, S. B. Fluctuations in *Drosophila* populations in a tropical area. Amer. Nat., New York **87** : 317–322, 1 fig. [Dipt.]

2783.—Pirán, A. A. El alotipo macho de *Parudenus falklandicus* Enderlein, 1909 (Orthop., Rhaphidophoridae). Acta zool. lilloana, Tucuman **10** 1952 : 283-284.

2784.—Pisarski, B. The ants from the vicinity of Kasimierz. [In Polish with English summary.] Fragm. faun. Mus. zool. polon., Warsaw **6** : 465–500, 1 fig. [Hym.]

2785.—Pissarro, C. Contribuição para o conhecimento dos Hemípteros do Algarve. Arq. Mus. Bocage **22** (1951) [? 1953] : 111–130.

2786.—Pittioni, B. Eine Bienenausbeute aus Apulien (Hymenoptera, Apoidea). Mem. Biogeogr. adriat., Venice **2** : 49–62, 5 figs.

2787.—Pittioni, B. Ueber Variabilität und Verbreitung der westpaläarktischen Arten der Gattung *Spatulariella* Pop. (Hym., Apoidea, Colletidae). Z. wien. ent. Ges., Vienna **37** 1952 : 187–204, 17 figs.

Piza *see* Toledo Piza.

2788.—Pleskot, G. Zur Oekologie der Leptophlebiiden (Ins., Ephemeroptera). Oest. zool. Z., Vienna **4** : 45–107, 24 figs.

2789.—Plumb, G. H. The formation and development of the Norway spruce gall caused by *Adelges abietis* L. Bull. Connecticut agric. Exp. Sta., New Haven no. 566 : 1–27, 40 figs. [Hem.]

2790.—Podany, C. Quelques nouvelles espèces de Dorcadionini. Bull. Soc. ent. Mulhouse **1953** : 33–34. [Col.]

2791.—Podany, C. Quelques nouvelles espèces de Lepturini (Col. Cerambycidae). Bull. Soc. ent. Mulhouse **1953** : 41–44, 24 figs.

2792.—Podany, C. Quelques nouvelles aberrations de Cerambycidae. Bull. Soc. ent. Mulhouse **1953** : 49–52, 22 figs. [Col.]

2793.—Podany, C. Etude biologique sur *Judolia cerambyciformis* Schrk. et *Strangalia maculata* Poda (Col. Cerambycidae). Bull. Soc. ent. Mulhouse **1953** : 73–76, 3 figs.

2794.—Podany, C. Studien über *Saperda scalaris* L. Ent. NachrBl., Vienna **5** : 18–20, 45 figs. [Col.]

Poerink *see* Jonge Poerink.

2795.—Pohley, H.-J. Untersuchungen über differentielle Zellteilungen und somatische Mutationen am Schuppenkleid der Mehlmotte *Ephestia kühniella* Z. Biol. Zbl., Leipzig **72** : 577–598, 14 figs. [Lep.]

2796.—Pohley, H.-J. Ueber die Unterteilung der Chromosomen in identische Mutationseinheiten bei *Ephestia*. Naturwissenschaften, Berlin **40** : 146–147, 1 fig. [Lep.]

Pohley, H.-J. *see* Henke & Pohley.

2797.—Poisson, R. La réserve naturelle intégrale du Mt Nimba, fascicule 1. XIII. Hydrocorises. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 277–287, 13 figs. [Hem.]

2798.—Poisson, R. & Razet, P. Recherches sur la dégradation de l'acide urique chez les Hémiptères aquatiques. C.R. Acad. Sci., Paris **237** : 1362–1363.

2799.—Polonovski, M., Alcantara, C. & Busnel, R. G. Sur la pluralité des ptérines des écailles des cyprinidés et des oeufs de *Bombyx mori*. C.R. Acad. Sci., Paris **235** 1952 : 1703-1704. [Lep.]

2800.—[Polovodova, V. P.] Innervation of the sexual apparatus and hind intestine of the female of the malaria mosquito. [In Russian.] Zool. Zhurn., Moscow **32** : 635–637, 1 fig. [Dipt.]

2801.—Poole, A. L. Preliminary reports of the New Zealand-American Fiordland expedition. Investigations in Fiordland, New Zealand in 1949. Bull. N.Z. Dep. sci. industr. Res., Wellington no. 103 1951: 1–99, 19 figs. 1 map.

2802.—Pope, P. Studies of the life histories of some Queensland Blattidae (Orthoptera). Parts I, II. Proc. roy. Soc. Qd, Brisbane **63**: 23–46, 9 figs., 47–59, 1 pl. 3 figs.

2803.—Pope, R. D. Handbooks for the identification of British insects. Coleoptera, Coccinellidae & Sphindidae. London, R. ent. Soc. **5** pt. 7, 12 pp. 23 figs.

2804.—Pope, R. D. New species of Colydiidae from the Belgian Congo and notes on some others. Ann. Mus. Congo belge, Tervuren (Sér. 8°) Sci. zool. **19** (1952): 1–45, 23 figs. [Col.]

2805.—Popham, E. J. The influence of temperature and intensity of illumination upon the phototactic responses of Corixidae (Hem.). Ent. mon. Mag., London **89**: 1–2.

2806.—Popham, E. J. Measurements of the swimming speeds of some of the commoner species of *Corixa* (Hem., Corixidae). Ent. mon. Mag., London **89**: 3.

2807.—Popham, E. J. The arrangement of the ommatidia in the eyes of *Corixa distincta* (Fieb.) (Hem., Corixidae) and its relation to the posture positions of this insect. Ent. mon. Mag., London **89**: 100–102.

2808.—Popham, E. J. Observations on the migration of Corixids (Hem.) into a new aquatic habitat. Ent. mon. Mag., London **89**: 124–125.

2809.—Popov, G. Investigations of suspected outbreak areas of the desert locust (*Schistocerca gregaria* Forskål) in Iran. Anti-locust Bull., London no. 14: 1–32, 16 figs. 2 maps. [Orth.]

Popov, G. B. *see* Smith & Popov.

2810.—[Popov, V. V.] Hymenoptera, Apoidea of S.W. Turkmenistan and their ecological distribution. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **10** 1952: 61–117, 13 figs.

2811.—[Popov, V. V.] Fauna of Apidae and its distribution in the central part of the state forest strip, Mt. Vishnevaya-Caspain Sea. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952: 142–165. [Hym.]

2812.—[Popova, A. N.] Larvae of dragonflies of the fauna of the USSR (Odonata). [In Russian.] Opred. Faune SSSR, Moscow **50**: 5–235, 141 figs.

2813.—[Pospelov, S. M.] On the feeding and economic importance of tits, tree-creepers and the lesser spotted wood-peckers. [In Russian.] Zool. Zhurn., Moscow **32**: 283–287.

2814.—Possompès, B. Recherches expérimentales sur le déterminisme de la métamorphose de *Calliphora erythrocephala* Meig. Arch. Zool. exp. gén., Paris **89**: 203–364, 58 figs. [Dipt.]

2815.—Postner, M. Kopulationsverhalten bei den Gattungen *Bombus* und *Psithyrus* (Apidae, Hymenoptera). Zool. Anz., Leipzig **151**: 300–306, 5 figs.

Potter, C. *see* Lord & Potter; Salkeld & Potter.

2816.—Powning, R. F. Studies on the digestion of wool by insects. VIII. Aust. J. biol. Sci., Melbourne **6**: 109–117. [Lep., Col.]

2817.—Prabhaker Rao, V. Some new Diaspine scale insects from India. Proc. R. ent. Soc. London (B) **22**: 61–68, 6 figs. [Hem.]

2818.—Pradhan, S. & **Bindra,** O. S. Relation between changes in susceptibility and various factors connected with successive instars of the desert locust. Curr. Sci., Bangalore **22**: 380–381. [Orth.]

2819.—Pradhan, S. & **D'Souza,** G. I. On some aspects of insect desiccation. Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts: 151. [Orth.]

2820.—Pradhan, S. & **Srivastava,** H. M. L. Physical performance of a laboratory dust testing apparatus. Indian J. Ent., New Delhi **13** (1951) 1952: 209–220, 8 figs.

Prasad, V. G. *see* Mukerhji & Prasad.

2821.—Pratt, H. D. Notes on American *Mansonia* mosquitoes (Diptera, Culicidae). Proc. ent. Soc. Wash. **55** : 9–19, 2 pls.

2822.—Pratt, H. D. & **Karp,** H. Notes on the rat lice *Polyplax spinulosa* (Burmeister) and *Hoplopleura oenomydis* Ferris. J. Parasit., Lancaster, Pa. **39** : 495–504, 5 pls. [Anopl.]

2823.—Pratt, jr., J. J. & **Babers,** F. H. Sensitivity to DDT of nerve ganglia of susceptible and resistant house flies. J. econ. Ent., Menasha **46** : 700–702. [Dipt.]

2824.—Precht, H. Ueber die Orientierung der Tiere zum Licht. Verh. dtsch. zool. Ges., Berlin **1951** 1952 : 242–247.

2825.—Precht, H. Ueber Ruhestadien erwachsener Insekten. I. Versuche an Kartoffelkäfern (*Leptinotarsa decemlineata* Say). Z. vergl. Physiol., Berlin **35** : 326–343. [Col.]

2826.—Precht, H. & **Carlsen,** H. Untersuchungen über die Abhängigkeit der Aktivität und Quantität von Fermenten der Larven von *Chironomus thummi* Kieffer von der Vorbehandlung der Tiere. Z. vergl. Physiol., Berlin **35** : 209–218, 1 fig. [Dipt.]

2827.—Prevett, P. F. Notes on the feeding habits and life-history of *Galeruca tanaceti* L. (Col., Chrysomelidae). Ent. mon. Mag., London **89** : 292–293, 5 figs.

2828.—Prevosti, A. Datos sobre los caracteres vti y vli en una población natural de *Drosophila subobscura* Collins. Genet. iber., Madrid **3** 1951 : 37–46. [Dipt.]

2829.—Priesner, H. Further studies in Proctotrupoidea : I. the genus *Phaenopria* Ashm., 2. the genus *Monelata* Foerst., and 3. remarks on *Diapria* Latr. and allied genera (Hymenoptera). Bull. Soc. Fouad 1er Ent., Cairo **37** : 441–457.

2830.—Priesner, H. On some new genera and species of Thysanoptera from the Oriental region. Indian J. Ent., New Delhi **13** (1951) 1952 : 183–200, 4 figs.

2831.—Priesner, H. On the genera allied to *Liothrips*, of the Oriental fauna. I (Thysanoptera). Treubia, Bogor **22** : 357–380.

2832.—Priesner, H. & **Alfieri,** A. A review of the Hemiptera Heteroptera known to us from Egypt. Bull. Soc. Fouad 1er Ent., Cairo **37**: 1–119.

2833.—Priesner, H. & **Seshadri,** A. R. Some new Thysanoptera from South India. Indian J. agric. Sci., Delhi **22** (1952) : 405–411, 3 pls.

2834.—Principi, M. M. Sviluppo postembrionale ed etologia della *Lithocolletis platani* Stgr. (Lepidoptera Gracilariidae). Boll. Ist. Ent. Univ. Bologna **19** : 171–250, 34 figs.

2835.—Princis, K. Kleine Beiträge zur Kenntnis der Blattarien und ihrer Verbreitung. V. Opusc. ent., Lund **18** : 53–58, 2 figs. [Orth.]

2836.—Princis, K. The 3rd Danish Expedition to Central Asia. Zoological results 10. Blattariae (Insecta) from Afghanistan. Vidensk. Medd. dansk naturh. Foren. Kbh. **115** : 173–176. [Orth.]

2837.—Pringle, G. The sandflies (Phlebotominae) of Iraq. Bull. ent. Res., London **43** : 707–734, 11 figs. 2 maps. [Dipt.]

2838.—Pringle, J. W. S. Physiology of song in Cicadas. Nature, London **172** : 248–249, 1 fig. [Hem.]

2839.—Pritchard, A. E. The gall midges of California. Diptera : Itonididae (Cecidomyiidae). Bull. Calif. Ins. Surv., Berkeley **2** : 125–150, 1 pl.

2840.—Pritchard, A. E. The white clover flower midge as differentiated from the red clover flower midge (Diptera : Itonididae). Pan-Pacif. Ent., San Francisco **29** : 128–132, 2 figs.

2841.—Prosen, A. F. & **Martínez,** A. Una interesante especie de *Uranotaenia* (Diptera-Culicidae). Publ. Mis. Estud. Pat. reg. argent., Buenos Aires **24** nos. 83–84 : 43–46.

2842.—Prosen, A. F. & **Martínez,** A. Una nueva especie de *Agriocleptes* (Hemipt. Reduviidae, Apiomerinae). Publ. Mis. Estud. Pat. reg. argent., Buenos Aires **24** nos. 83–84 : 53–56, 1 col. pl.

Prosen, A. F. *see* Manso Soto, Martínez & Prosen; Martínez & Prosen.

2843.—Provost, M. W. Motives behind mosquito flights. Mosquito News, Albany, N.Y. **13**: 106–109. [Dipt.]

2844.—Pruthi, H. S. & **Bhatia,** D. R. Peculiarities of the insect fauna of the Rajasthan Desert and the share of insects in the maintenance of the desert. Bull. nat. Inst. Sci. India, New Delhi no. 1 1952: 241–245.

2845.—Puisségur, C. Les diverses formes de *Cechenus pyrenaeus* Serv. dans les Pyrénées-Orientales. Entomologiste, Paris **9**: 43–47, 5 figs. [Col.]

2846.—Puisségur, C. Sur quelques parasites de Carabes. Entomologiste, Paris **9**: 65–68. [Col.]

2847.—Puisségur, C. Aux confins de l'Aude et de l'Ariège: une intéressante région entomologique. Vie et Milieu, Paris **3** 1952: 270–280.

2848.—Pujatti, D. Sull'attività zoofaga delle larve di *Toxorhynchites splendens* Wiedemann (Diptera: Culicidae). Boll. Soc. ent. ital., Genoa **82** 1952: 11–13, 1 fig.

2849.—Pujatti, D. *Xenopsylla cheopis* Roths. e *Xenopsylla astia* Roths. in due muridi del sud India (Aphaniptera). Doriana, Genoa **1** 1952 no. 33: 1–7, 2 figs.

Půlpán, J. *see* Bouček, Půlpán & Šedivý.

2850.—Pussard, R. Un nouveau ravageur des lavandes *Thomasiniana lavandulae* Barnes (Dipt. Cecidomyidae). Bull. Soc. ent. Fr., Paris **58**: 128–130.

2851.—Puttarudriah, M. & **Channabasavanna,** G. P. Occurrence of *Coccus viridis* (Green) and *Coccus viridis colemani* Kannan, in South India. Indian Coffee, Bangalore **17**: 248–253, 1 fig. [Hem.]

2852.—Puttarudriah, M. & **Channa Basavanna,** G. P. Beneficial Coccinellids of Mysore I. Indian J. Ent., New Delhi **15**: 87–96. [Col.]

2853.—Puttarudriah, M. & **Channa Basavanna,** G. P. The constitution of the scape in the superfamily Ichneumonoidea (Hymenoptera). Indian J. Ent., New Delhi **15**: 266–268, 1 fig.

2854.—Quednau, W. Kleine Beiträge zur Kenntnis europäischer Blattläuse. Zool. Anz., Leipzig **150**: 223–229, 5 figs. [Hem.]

2855.—Quentin, R. M. L'anophtalmie des Scaritides. Note préliminaire (Col. Caraboidea). Bull. Soc. ent. Fr., Paris **58**: 107–109, 1 fig.

2856.—Quentin, R. M. Sur *Sarcophaga maculata* Meigen (Dipt. Sarcophagidae), endoparasite de *Pimelia grandis* ssp. *latastei* Senac (Col. Tenebrionidae). Encycl. ent., Paris (B) II Dipt. **11**: 73–76, 1 fig.

2857.—Qutubuddin, M. The emergence and sex ratio of *Culex fatigans* Wied. (Diptera, Culicidae) in laboratory experiments. Bull. ent. Res., London **43**: 549–565, 3 figs.

2858.—Rabe, W. Beiträge zum Orientierungsproblem der Wasserwanzen. Z. vergl. Physiol., Berlin **35**: 300–325, 14 figs. [Hem.]

2859.—Rácenis, J. Algunas notas sobre las especies venezolanas del género *Nephepeltia* (Odonata: Libellulidae). Acta biol. venezuel., Caracas (Secc. Biol.) **1**: 133–140, 1 fig.

2860.—Rácenis, J. Una nueva especie del género *Neoneura* (Odonata: Protoneuridae) de Venezuela. Acta biol. venezuel., Caracas (Secc. Biol.) **1**: 155–158, 1 fig.

2861.—Rácenis, J. Records of Venezuelan Odonata, with a description of a new species. Opusc. ent., Lund **18**: 180–189, 4 figs.

Radhakrishnamurty, R. *see* Sundaram, Radhakrishnamurty, Shanmugasundaram & Sarma.

2862.—Rageau, J. Les noms vernaculaires des insectes au Cameroun français. Bull. Soc. Path. exot., Paris **46**: 1099–1112.

2863.—Rageau, J. & **Adam,** J.-P. Note complémentaire sur les Culicinae du Cameroun. Ann. Parasit. hum. comp., Paris **28**: 412–424. [Dipt.]

2864.—Rageau, J. & Adam, J.-P. Note sur les Phlébotomes d'Evodoula (Cameroun français). Bull. Soc. Path. exot., Paris **46**: 587–594, 7 figs. [Dipt.]

2865.—Rageau, J. & Adam, J.-P. Répartition des glossines au Cameroun français (1953). Rev. Elev., Paris (N.S.) **6**: 73–76, 1 map. [Dipt.]

2866.—Rageau, J., Adam, J.-P. & Rivola, E. Etude préliminaire sur la biologie d'*Anopheles gambiae*, Giles 1902 dans les régions forestières du Sud-Cameroun. Ann. Parasit. hum. comp., Paris **28**: 425–449, 4 figs. [Dipt.]

2867.—Raignier, R. P. A. & Van Boven, J. K. A. Quelques aspects nouveaux de la taxonomie et de la biologie des doryles africains (Hyménoptères, Formicidae). Ann. Sci. nat., Paris Zool. (11) **14** (1952): 397–403.

2868.—Rainey, R. C. & Ashall, C. Note on the behaviour of desert locusts in a light-beam. Brit. J. Anim. Behav., London **1**: 136–138. [Orth.]

Rainwater, C. F. *see* Reiser & others.

2869.—Ramakrishnan, N. R. & Rathnaswamy, G. K. Some notes on sand-flies: a technique for mounting specimens for examination: honey-water as sand-fly feed in cages. Indian J. Ent., New Delhi **15**: 79–85. [Dipt.]

Ram Das Menon *see* Rattan Lal & Ram Das Menon.

2870.—Ramsay, G. W. A supplementary sound-producing device in *Deinacrida rugosa* Buller (the Stephens Island Weta). N. Z. Ent., Wellington **1** no. 3: 12–13, 1 pl. [Orth.]

2871.—Ramsay, J. A. Exchanges of sodium and potassium in mosquito larvae. J. exp. Biol., London **30**: 79–89. [Dipt.]

2872.—Ramsay, J. A. Active transport of potassium by the Malpighian tubules of insects. J. exp. Biol., London **30**: 358–369, 1 fig.

2873.—Randle, W. S. Observations on the life history of *Calephelis borealis*. Part I. Lepid. News, New Haven **7**: 119–122.

2874.—Ranga Setty, H. T. & Hanumantha Rao, H. On the occurrence of two species of *Xylotrechus* on *Codiaeum maculata*, a garden croton. Curr. Sci., Bangalore **22**: 308–309. [Col.]

2875.—Rao, S. N. Notes on some parasitic Hymenoptera from India with the description of a new species *Apanteles epijarbi*. Indian J. Ent., New Delhi **15**: 23–28, 5 figs.

2876.—Rao, S. N. Six new species of gall midges (Itonididae: Diptera) from India. Rec. Indian Mus., Delhi **50**: 307–319, 6 figs.

Rao *see* Annaji Rao.

Rao *see* Hanumantha Rao.

Rao *see* Prabhaker Rao.

Rao *see* Subba Rao.

Rao *see* Venkat Rao.

Rathnaswamy, G. K. *see* Ramakrishnan & Rathnaswamy.

2877.—Rattan Lal. Notes on the effect of temperature on the developmental stages of *Anopheles subpictus* Grassi and *Anopheles stephensi* Liston. Indian J. Ent., New Delhi **15**: 97–106. [Dipt.]

2878.—Rattan Lal & Haque, E. The importance of *Sphaerophoria scutellaris* (Fabr.) as a predator and its longevity and fecundity. Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts: 199–200. [Dipt.]

2879.—Rattan Lal & Lal Gupta, S. B. Morphology of the immature stages of *Sphaerophoria scutellaris* (Fabr.)—(Syrphidae: Diptera) with notes on its biology. Indian J. Ent., New Delhi **15**: 207–218, 2 pls.

2880.—Rattan Lal & Ram Das Menon. Catalogue of Indian insects. Part 27—Isoptera. Delhi, Manager of Publ. [5+] 94 pp.

Ratty, jr., F. J. *see* Lefevre, Ratty & Hanks.

2881.—Ratzenhofer, M. Studien über die Gewichtsveränderungen bei der Entwicklung des grossen Kohlweisslings. S.B. öst. Akad. Wiss., Vienna Abt. I **162**: 105–118, 3 figs. [Lep.]

2882.—Rautenberg, L. E. Berichtigung zur Abhandlung von Kraatz über Jacob Sturm's "Insecten Cabinet". Beitr. Ent., Berlin **3**: 105–111, 3 figs.

2883.—Rautenberg, L. E. Beiträge zur Kenntnis alter naturwissenschaftlicher Werke. Beitrag 2. Beitr. Ent., Berlin **3**: 618–626, 3 figs.

2884.—Rawson, D. S. The bottom fauna of Great Slave Lake. J. Fish. Res. Bd Can. **10**: 486–520, 11 figs.

Ray Chaudhuri, S. P. *see* Sarkar & Ray Chaudhuri.

2885.—Rayment, T. Bees of the Portland district. Portland Field Nat. Cl., Victoria, Australia 39 pp., 1 pl. 3 figs. [Hym.]

2886.—Rayment, T. Pictorial biology of a leafcutter bee. Vict. Nat., Melbourne **70**: 50–51, 26 figs. [Hym.]

2887.—Rayment, T. New bees and wasps, parts XX, XXI. Vict. Nat., Melbourne **70**: 68–71, 12 figs., 123–127, 1 pl. [Hym.]

2888.—Razet, P. Contribution à l'étude des espèces armoricaines du genre *Brachinus* Weber 1801 (Coléoptères Carabiques). Bull. Soc. Sci. Bretagne, Rennes **26** (1951): 42–46, 5 figs.

2889.—Razet, P. Recherches sur la localisation des enzymes uricolytiques chez les insectes. C.R. Acad. Sci., Paris **236**: 1304–1306.

Razet, P. *see* Poisson & Razet.

2890.—Razowski, J. Anomalien bei Schmetterlingen. Z. wien. ent. Ges., Vienna **38**: 70–71, 2 figs. [Lep.]

Razvyazkina, G. M. *see* Lange & Razvyazkina.

2891.—Réal, C. Catalogue des espèces françaises du genre *Cnephasia* Curt. Bull. mens. Soc. linn. Lyon **22**: 51–62, 9 figs. [Lep.]

Redder, A. M. *see* Burchfield, Redder, Storrs & Hilchey.

2892.—Reeves, W. C. Quantitative field studies on a carbon dioxide chemotropism of mosquitoes. Amer. J. trop. Med. Hyg., Baltimore **2**: 325–331, 1 fig. [Dipt.]

Reeves, W. C. *see* Brookman & Reeves.

2893.—Regteren Altena, C. O. van. A revision of the genus *Nyctalemon* Dalman (Lepidoptera, Uraniidae) with notes on the biology, distribution, and evolution of its species. Zool. Verh., Leiden **19**: 1–57, 4 pls. 7 figs.

2894.—Rehn, J. A. G. The grasshoppers and locusts (Acridoidea) of Australia. Vol. II. Family Acrididae (subfamily Pyrgomorphinae). Melbourne, Commonw. sci. ind. Res. Org. 270 pp. 32 pls. [Orth.]

2895.—Rehn, J. A. G. The type of *Forficula rehni* (Dermaptera). Ent. News, Lancaster, Pa. **64**: 126–127.

2896.—Rehn, J. A. G. On two interesting Phasmids (Orthoptera: Phasmatidae) from coastal Peru. Trans. Amer. ent. Soc., Philadelphia **79**: 1–11, 1 pl.

2897.—Rehn, J. A. G. Records and descriptions of Pyrgomorphinae (Orthoptera: Acrididae) with critical notes on certain genera. Trans. Amer. ent. Soc., Philadelphia **79**: 99–150, 5 pls.

Reichardt, W. *see* Hassenstein & Reichardt.

2898.—Reichenbach-Klinke, H.-H. Die Entwicklung des Proventrikels der Coleopteren mit besonderer Berücksichtigung der carnivoren Arten der Unterordnung Polyphaga (Coleoptera). Ent. Bl., Krefeld **49**: 2–17, 15 figs.

2899.—Reichenbach-Klinke, H.-H. Der histologische Aufbau des Proventrikels der Adephaga (Coleoptera) und seine Bedeutung für Taxonomie und Phylogenie. Mitt. münch. ent. Ges., Munich **43**: 262–305, 19 figs.

2900.—Reichenbach-Klinke, H.-H. Der Darmkanal der Coleopteren als Kriterium für stammesgeschichtliche Untersuchungen. Verh. dtsch. zool. Ges., Leipzig **1952**: 461–467, 2 figs.

2901.—Reichenbach-Klinke, H.-H. Der Kaumagen holzfressender Käfer. Z. angew. Ent., Berlin **34** : 335–345, 7 figs. [Col.]

2902.—Reichensperger, A. Ein neuer *Paussus* der *crenaticornis* Gruppe aus S.-Africa nebst Bemerkungen zu *P. pipitzi* Dohrn und *P. americanus* Kolbe. Ent. Bl., Krefeld **49** : 90–95, 3 figs. [Col.]

2903.—Reid, J. A. The *Anopheles hyrcanus* group in south-east Asia (Diptera : Culicidae). Bull. ent. Res., London **44** : 5–76, 13 figs.

2904.—Reiff, M. & **Wyniger,** R. Experimentelle Untersuchungen an Larven von *Ophyra anthrax* Meigen (Dipt.). Mitt. ent. Ges. Basel (N.F.) **3** : 61–68, 2 figs.

2905.—Reimann, K. Untersuchungen an der Thoraxdrüse der Arbeiterin von *Apis mellifica*. Naturwissenschaften, Berlin **40** : 538. [Hym.]

2906.—Reinhard, H. J. New species of Tachinidae from Mexico (Diptera). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 89–96.

2907.—Reinhard, H. J. New Mexican Tachinidae (Diptera). J. Kansas ent. Soc., Manhattan **26** : 95–102.

2908.—Reinhard, H. J. New Muscoid Diptera from the western United States. Pan-Pacif. Ent., San Francisco **29** : 49–59.

2909.—Reinhard, H. J. Notes on Muscoid synonymy with descriptions of three new species (Diptera). Proc. ent. Soc. Wash. **55** : 243–247.

2910.—Reinig, H. J. Untersuchung von Riesenchromosomen. Mikrokosmos, Stuttgart **42** : 116–117, 1 fig. [Dipt.]

Reinius, L. *see* Nuorteva & Reinius.

2911.—Reiser, R., **Chadbourne,** D. S., **Kuiken,** K. A., **Rainwater,** C. F. & **Ivy,** E. E. Variations in lipid contents of the boll weevil and seasonal variation in its resistance to insecticides. J. econ. Ent., Menasha **46** : 337–340, 3 figs. [Col.]

Reiser, R. *see* Beckman, Bruckart & Reiser.

2912.—Reiss, H. Beitrag zur Lepidopterenfauna der Seealpen (Alpes-Maritimes) unter besonderer Berücksichtigung der Zygaenen. Ent. Z., Frankfurt a. M. **63** : 73–80, 91–96, 99–104, 108–112, 118–120, 7 figs.

2913.—Reiss, H. Ueber drei Zygaenen die als regressive Endemiten bezeichnet werden können, deren Entstehung vermutlich in der Pliozänzeit erfolgte. Z. wien. ent. Ges., Vienna **38** : 131–141, 3 pls. (1 col.) 3 figs. [Lep.]

2914.—Reiss, H. Zygaenenrassen (Lep.) der alpinen Stufe der Ost-Dolomiten und ihr vermutliches Entstehungsalter. Z. wien. ent. Ges., Vienna **38** : 261–270, 1 pl.

2915.—Reisser, H. Weitere Notizen zur Lepidopterenfauna Niederösterreichs. Z. wien. ent. Ges., Vienna **38** : 247–250.

2916.—Remane, R. Die Wanzen der Fulda-Expedition. Ber. limnol. Flussst. Freudenthal **3** 1952 : 8–13. [Hem.]

2917.—Remane, R. Zur Systematik der Untergattung *Reduviolus* (Hem. Het. Nabidae). Zool. Anz., Leipzig **150** : 190–199, 5 figs.

2918.—Remaudière, G. Contribution à l'étude des Aphidoidea de la faune française. Description de quelques Aphididae nouveaux et addition à la liste des Myzinae et Dactynotinae. Rev. Path. vég., Paris **31** 1952 : 232–263, 5 pls. [Hem.]

Remaudière, G. *see* Davatchi & Remaudière.

2919.—Remington, C. L. The biology of Nearctic Lepidoptera. II. Foodplant and pupa of *Hemiargus isolus*. Psyche, Cambridge, Mass. **59** (1952) : 129–130.

2920.—Remmert, H. *Dasyhelea tecticola* n. sp., eine Ceratopogonide aus Regenrinnen (Diptera : Ceratopogonidae). Beitr. Ent., Berlin **3** : 333–336, 4 figs.

2921.—Remmert, H. Zwei neue Chironomiden (Diptera) von der schleswig - holsteinischen Küste. Kieler Meeresforsch. **9** : 235–237, 2 pls.

2922.—Rempel, J. G. The mosquitoes of Saskatchewan. Canad. J. Zool., Ottawa **31** : 433–509, 162 figs. [Dipt.]

Rempel, J. G. *see* Fredeen, Spinks & others.

2923.—Repass, R. P. Laboratory colonization of *Aëdes triseriatus*. J. econ. Ent., Menasha **45** (1952): 1076. [Dipt.]

Reye, E. J. *see* Lee & Reye.

2924.—Reymond, A. Insectes de divers ordres récoltés au Sahara central au cours d'une mission du Centre National de la Recherche scientifique en 1947–1948. Bull. Soc. Sci. nat. Maroc, Rabat **32** (1952): 77–89.

2925.—Reymond, C. & A. Coléoptères récoltés au Maroc septentrional et dans le Rif par François Reymond au printemps de 1927. In memoriam. Bull. Soc. Sci. nat. Maroc, Rabat **33**: 39–46.

Reynaud, P. *see* Lavoipierre & Reynaud.

2926.—Reyne, A. *Ripersia wünni* n. sp. (Pseudococcidae). Ent. Ber., Amsterdam **14**: 235–239, 21 figs. [Hem.]

Řezáč, M. *see* Miller & Řezáč.

2927.—Rhein, W. v. Ueber die Entstehung des weiblichen Dimorphismus im Bienenstaate und ihre Beziehung zum Metamorphoseproblem (vorläufige Mitteilung). Verh. dtsch. zool. Ges., Leipzig **1951** 1952: 99–101. [Hym.]

2928.—Ribbands, C. R. The inability of honeybees to communicate colours. Brit. J. Anim. Behav., London **1**: 5–6, 1 fig. [Hym.]

2929.—Ribbands, C. R. & Speirs, N. The adaptability of the homecoming honeybee. Brit. J. Anim. Behav., London **1**: 59–66. [Hym.]

Ribeiro *see* Carneiro Ribeiro.

2930.—Ricci, M. Su una anomalia ereditaria osservata nei maschi di *Blatta orientalis* L. Boll. Soc. ent. ital., Genoa **83**: 109–110, 1 fig.; also in R. C. Ist. sup. Sanit., Rome **16**: 663–665, 1 fig. [Orth.]

2932.—Ricci, M. Contributo alla conoscenza degli ectoparassiti dei chirotteri italiani I. Insecta. Riv. Parassit., Rome **14**: 219–226.

2933.—Ricciardi, I., Nascimento, L. P. & Souza, S. H. de. Observações sôbre um mutante de *Musca domestica* L., aparecido depois de contato com o isômero gama do hexaclorobenzeno, em prova de laboratório (nota prévia). Rev. brasil. Malariol., Rio de Janeiro **4** 1952: 427–428. 2 pls. [Dipt.]

2934.—Richard, G. Le rôle des organes sensoriels dans certaines phases du comportement des termites. Ann. Sci. nat., Paris Zool. (11) **14** (1952): 415–421, 1 fig. [Isopt.]

2935.—Richard, R. Description d'un Curculionide hypogée nouveau de Madagascar. Nat. malgache, Tananarive **4** 1952: 143–144, 1 fig. [Col.]

2936.—Richards, A. G. Some notes on the role of epidermis in insects and ticks. Ent. News, Lancaster, Pa. **64**: 73–76.

2937.—Richards, A. G., Clausen, M. B. & Smith, M. N. Studies on Arthropod cuticle X. The asymmetrical penetration of water. J. cell. comp. Physiol., Philadelphia **42**: 395–413, 8 figs.

Richards, jr., A. G. *see* Patterson, Dumm & Richards.

2938.—Richards, O. W. The social insects. London, Macdonald & Co. xiii & 219 pp. 21 pls. 12 figs.

2939.—Richards, O. W. The study of the numbers of the Red Locust *Nomadacris septemfasciata* (Serville). Anti-locust Bull., London no. 15: 1–30, 4 figs. [Orth.]

2940.—Richards, O. W. Two new African species of *Ceroptera* Meigen (Diptera: Sphaeroceridae). Proc. R. ent. Soc. London (B) **22**: 5–8, 3 figs.

2941.—Richards, O. W. The classification of the Dryinidae (Hym.) with descriptions of new species. Trans. R. ent. Soc. London **104**: 51–70, 11 figs.

2942.—Richards, O. W. The care of the young and development of social life in the Hymenoptera. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 135–138.

2943.—Richards, T. J. *Nemobius sylvestris* (F.) (Orthopt., Gryllidae): a correction and some further notes. Entomologist, London **86**: 132–134.

Richards, W. R. *see* Mills & Richards.

2944.—Richardson, jr., E. S. Techniques in studying Pennsylvanian insects. Proc. Pa Acad. Sci., Harrisburg **27**: 159–161, 5 figs.

Richmond, E. A. *see* Rings & Richmond.

2945.—Richter, L. El apéndice pronotal en los Membrácidos. Lozania, Bogota no. 7: 1–4. [Hem.]

2946.—Ricou, G. Intoxication des larves de *Melolontha melolontha* L. par la tyrosine et la bétaine. C.R. Soc. Biol., Paris **147**: 791–794. [Col.]

Ricour, J. *see* Ellenberger, Laurentiaux & Ricour; Laurentiaux-Vieira, Ricour & Laurentiaux.

Ridley, M. W. *see* Percy, Lord R. C. & H. E. & Ridley.

2947.—Riek, E. F. Fossil Mecopteroid insects from the Upper Permian of New South Wales. Rec. Aust. Mus., Sydney **23**: 55–87, 2 pls. 67 figs.

2948.—Rietschel, P. Der Hypopharynx von *Gryllus* und anderen Gryllinae, ein dem Fliegenrüssel analoges Organ. Z. Morph. Oekol. Tiere, Berlin **41**: 386–410, 18 figs. [Orth.]

2949.—Rietschel, P. Die Balgengelenke der durch Blutdruck beweglichen Antennenkeule bei Lamellicorniern (Coleoptera). Zool. Anz., Leipzig **151**: 166–174, 6 figs.

2950.—Riggall, E. C. Mass movements of Coleoptera on the Lincolnshire coast. Ent. mon. Mag., London **89**: 130–131.

2951.—Riherd, P. T. The occurrence of *Blattella vaga* Hebard in Texas (Orthoptera Blattidae). Proc. ent. Soc. Wash. **55**: 39–40.

2952.—[Rikhter, A. A.] Fn. USSR. Insects: Coleoptera 13 no. 4. Gold-winged beetles (Buprestidae) Part 4. [In Russian.] Zool. Inst. Akad. Nauk SSSR, Moscow (N.S.) **51** 1952: 1–234, 47 figs.

Rilett, R. O. *see* Roberts & Rilett.

2953.—Rindge, F. H. Synonymic notes on North American Geometridae (Lepidoptera). J. New York ent. Soc. **61**: 141–142.

2954.—Rindge, F. H. & **Comstock,** W. P. An unnamed Lycaenid from Trinidad (Lepidoptera). J. New York ent. Soc. **61**: 99–100.

2955.—Ringdahl, O. Zwei neue Anthomyiinen aus Island (Diptera Brachycera: Muscidae). Ent. Medd., Copenhagen **26**: 462–464, 1 fig.

2956.—Ringdahl, O. A survey of the Swedish species of *Lasiops* (Dipt., Muscidae). [Translated from the Swedish by E. C. M. d'Assis-Fonseca.] J. Soc. Brit. Ent., Bournemouth **4**: 161–167.

2957.—Ringdahl, O. Fenologiska anteckningar om sydsvenska muscider under vinterhalvåret. Opusc. ent., Lund **18**: 27–30. [Dipt.]

2958.—Ringdahl, O. Dipterologiska notiser 13. Två för faunan nya dolichopodider. Opusc. ent., Lund **18**: 210.

2959.—Rings, R. W. & **Layne,** jr., G. W. Radioisotopes as tracers in plum curculio behavior studies. J. econ. Ent., Menasha **46**: 473–477.

2960.—Rings, R. W. & **Richmond,** E. A. Mosquito survey of Horn Island, Mississippi. Mosquito News, Albany, N.Y. **13**: 252–255. [Dipt.]

2961.—Ripley, S. H. & **Ewer,** D. W. Neuro-muscular facilitation in the locust. S. Afr. J. Sci., Cape Town **49**: 320–322, 2 figs., 376. [Orth.]

Ripley, S. H. *see* Ewer & Ripley.

2962.—Ris, H. & **Kerr,** W. E. Sex determination in the honey bee. Evolution, Lancaster, Pa. **6** (1952): 444–445, 3 figs. [Hym.]

2963.—Risbec, J. Chalcidoïdes et Proctotrupoïdes de l'Afrique occidentale française (2e supplément). Bull. Inst. franç. Afr. noire, Dakar **15**: 549–609, 12 figs. [Hym.]

2964.—Risbec, J. Les Hyménoptères parasites. Entomologiste, Paris **9**: 79–86, 14 figs.

2965.—Risbec, J. Proctotrupidae de Madagascar. Espèces récoltées par M. R. Paulian. Mém. Inst. sci. Madagascar (E) **3** : 313–348, 34 figs. [Hym.]

2966.—Risbec, J. Un Chalcidien nouveau de Madagascar (Hyménoptère). Nat. malgache, Tananarive **4** 1952 : 155–157, 1 fig.

2967.—Risbec, J. Contribution à l'étude des parasites du charançon du colza *Ceuthorrhynchus assimilis* Payk. Rev. Path. vég., Paris **32** : 37–43, 6 figs. [Col.]

Rishi, R. *see* Nath & Rishi.

2968.—Risler, H. Das Gehörorgan der Männchen von *Anopheles stephensi* Liston (Culicidae). Zool. Jb., Jena (Syst.) **73** : 165–186, 19 figs. [Dipt.]

2969.—Ristich, S. S. A study of the prey, enemies, and habits of the great-golden digger wasp *Chlorion ichneumoneum* (L.). Canad. Ent., Ottawa **85** : 374–386, 1 pl. 4 figs. [Hym.]

2970.—Ristich, S. S. & Lockard, D. An aspirator modified for sampling large populations. J. econ. Ent., Menasha **46** : 711–712, 1 fig.

Ritter, R. *see* Grison & Ritter.

2971.—Rivalier, E. Remarques sur les *Pterostichus* gallo-rhénans du groupe *cristatus* Dufour (Col. Pterostichidae). Bull. Soc. ent. Fr., Paris **58** : 82–87, 8 figs.

2972.—Rivalier, E. La réserve naturelle intégrale du Mt Nimba, fascicule 1. VI. Coléoptères Cicindelidae. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 69–70.

2973.—Rivalier, E. Note sur une sous-espèce méconnue de *Lophyridia angulata* F. Rev. franç. Ent., Paris **20** : 81–84, 2 figs. [Col.]

2974.—Rivalier, E. Les trois grandes sous-espèces de *Lophyridia lunulata* F. Rev. franç. Ent., Paris **20** : 195–201, 2 figs. [Col.]

Rivers *see* La Rivers.

Rivola, E. *see* Rageau, Adam & Rivola.

2975.—Rivosecchi, L. I Muscidi pungenti (Diptera, Stomoxydinae) italiani. R.C. Ist. sup. Sanit., Rome **16** : 286–332, 7 pls.

2976.—Rivosecchi, L. Contributo alla conoscenza delle Stomoxydinae italiane (Diptera, Muscidae). Riv. Parassit., Rome **14** : 29–36, 18 figs.

Rivosecchi, L. *see* Saccà & Rivosecchi.

2977.—Rizki, M. T. M. Pattern of pigmentation associated with *Drosophila* lethals. Amer. Nat., New York **86** 1952 : 409–412, 1 fig. [Dipt.]

2978.—Rizki, M. T. M. The larval blood cells of *Drosophila willistoni*. J. exp. Zool., Philadelphia **123** : 397–411, 3 pls. [Dipt.]

2979.—Rizki, M. T. M. & Davis, jr., C. G. Light as an ecological determinant of interspecific competition between *Drosophila willistoni* and *Drosophila melanogaster*. Amer. Nat., New York **87** : 389–392. 1 fig. [Dipt.]

2980.—Roan, C. C. & Maeda, S. The cholinesterase of the oriental fruit fly and its in vitro reactions with various insecticidal compounds. J. econ. Ent., Menasha **46** : 775–779, 2 figs. [Dipt.]

2981.—Roback, S. S. New records of *Symbiocladius equitans* (Claasen) with some notes on the genus (Diptera ; Tendipedidae). Notul. nat. Acad. Philadelphia no. 251 : 1–2.

2982.—Roback, S. S. Tendipedid larvae from the St. Lawrence River (Diptera Tendipedidae). Notul. nat. Acad. Philadelphia no. 253 : 1–4, 3 figs.

2983.—Roback, S. S. Savannah River Tendipedid larvae (Diptera : Tendipedidae (=Chironomidae)). Proc. Acad. nat. Sci. Philadelphia **105** : 91–132, 44 figs.

2984.—Röber, J. Die Tagfalter der Insel Celebes. Dtsch. ent. Z., Iris, Dresden **53** 1940 : 89–117, 1 fig. [Lep.]

2985.—Robert, A. Notes sur deux charançons nouveaux pour la faune canadienne (*Magdalis piceae* Buch.,

Pentarthrum huttoni Woll. Curculionidés, Coleoptera). Ann. ACFAS, Montreal **19** (1951–1952): 100–103.

2986.—Robert, A. Les Odonates du Parc du Mont Tremblant. Canad. Ent., Ottawa **85**: 316–339, 1 map.

2987.—Robert, P. L'évolution d'une population de hannetons communs (*Melolontha melolontha* L.) dans un foyer simple à Rouffach (Haut-Rhin). Ann. Epiphyt., Paris (C) **4**: 257–281, 11 figs. [Col.]

2988.—Roberti, D. Contributo alla conoscenza delle specie italiane di *Mayetiola* Kieffer (Diptera-Cecidomyiidae). Boll. Lab. Ent. agr. Portici **12**: 98–153, 31 figs.

2989.—Roberts, R. H. & Rilett, R. O. Silk glands of the rusty grain beetle *Laemophloeus ferrugineus* (Steph.). Trans. Amer. micr. Soc., Columbus, Ohio **72**: 264–270, 4 figs. [Col.]

2990.—Robinson, A. G. Notes on *Stethorus punctatum* (Lec.) (Coleoptera: Coccinellidae), a predator of Tetranychid mites in Manitoba. Rep. ent. Soc. Ontario, Toronto **83** 1952 [1953]: 24–26.

2991.—Robinson, D. Garden bagworm, *Apterona crenulella* (= *helix*) in Nevada and Placer Counties, California. Bull. Calif. Dep. Agric., Sacramento **42**: 25–33, 3 figs. [Lep.]

2992.—Robinson, H. S. Mercury-vapour lamp technicalities. Ent. Gaz., London **4**: 280–281.

2993.—Robinson, I. The postembryonic stages in the life cycle of *Aulacigaster leucopeza* (Meigen) (Diptera Cyclorrhapha: Aulacigasteridae). Proc. R. ent. Soc. London (A) **28**: 77–84, 10 figs.

2994.—Rockstein, M. Some aspects of physiological aging in the adult worker honey bee. Biol. Bull., Lancaster, Pa. **105**: 154–159, 2 figs. [Hym.]

2995.—Rockstein, M. & Inashima, M. D. Enzymes in insects: alkaline phosphatase. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 20–23.

2996.—Rodríguez-Maridueña, J. D. Notas adicionales sobre la especie ecuatoriana *Phlebotomus* (*Pressatia*) *camposi*, Rodríguez 1952 (Diptera-Psychodidae). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 2: 91–96, 2 pls.

2997.—Rodríguez M., J. D. Los *Phlebotomus* del Ecuador (Diptera: Psychodidae). II.—Revisión de conocimientos. El *P. camposi*. Rev. ecuator. Hig. Med. trop., Guayaquil **8-9** 1951–1952 [?1953]: 15–18.

2998.—Rodríguez M., J. D. Los *Phlebotomus* del Ecuador (Diptera, Psychodidae). Rev. ecuator. Hig. Med. trop., Guayaquil **10**: 51–55, 2 pls.

2999.—Roeder, K. D. (Ed.) Insect physiology. New York, John Wiley & Sons, Inc.; London, Chapman & Hall, Ltd. xiv & 1100 pp. 257 figs.

3000.—Roehrich, R. Sur le régime alimentaire des adultes de *Cantharis obscura* L. Téléphore nuisible aux arbres fruitiers dans la région de Vic-en-Bigorre (Hautes Pyrénées). Ann. Epiphyt., Paris (C) **3** 1952: 329–337, 2 figs. [Col.]

3001.—Roell, L. Beitrag zur Lepidopterenfauna Andalusiens. Ent. Z., Frankfurt a. M. **63**: 33–38, 41–48, 52–55.

3002.—Roepke, W. K. J. Wandelende bladeren (Orthopt.). Ent. Ber., Amsterdam **14**: 293–294.

3003.—Roepke, W. *Aglia tau* L. bij Bennekom en enkele opmerkingen over deze soort. Ent. Ber., Amsterdam **14**: 337–338. [Lep.]

3004.—Roepke, W. Aantekeningen over synonymie. Ent. Ber., Amsterdam **14**: 364–365. [Lep.]

3005.—Roepke, W. *Cerosipha verbasci* Schrk., een zeldzame bladluis, nieuw voor de fauna van Nederland. Ent. Ber., Amsterdam **14**: 380–381. [Orth.]

3006.—Roepke, W. Quelques espèces des genres *Trabala* Walk. et *Crinocraspeda* Hamps. du Muséum de Paris (Lep. fam. Lasiocampidae). Rev. franç. Lépid., Paris **14**: 3–7, 1 pl.

3007.—Roepke, W. Four Lasiocampids from Java (Lepidoptera Heterocera). Tijdschr. Ent., Amsterdam **96**: 95–97, 1 pl.

3008.—Roepke, W. The *katinka* group of the genus *Loepa* (Lepidoptera Heterocera, Saturniidae). Tijdschr. Ent., Amsterdam **96** : 227–230, 1 pl. 2 figs.

3009.—Roepke, W. *Attacus dohertyi dammermani* nov. subspec., and some notes concerning the genus *Attacus* L. (Lepidoptera Heterocera, family Saturniidae). Zool. Meded., Leiden **32** : 49–56, 2 pls.

3010.—Roesler, R. Zwei neue *Lachesilla*-Arten (Psocoptera). Ent. Ber., Amsterdam **14** : 295–300, 15 figs.

3011.—Roesler, R. Die Einwirkung des abnormen Sommerwetters des Jahres 1952 auf einige Schmetterlingsarten. Ent. Z., Frankfurt a. M. **63** : 1–3. [Lep.]

Roesler, R. *see* Jancke & Roesler.

3012.—Röhrig, E. Die Lärchengespinstblattwespe *Cephaleia alpina* Klug. Untersuchungen bei einer Massenvermehrung in Schleswig-Holstein. Z. angew. Ent., Berlin **35** : 207–245, 12 figs. [Hym.]

3013.—Roivainen, H. A collection of Macrolepidoptera from Ulkokrunni. [In Finnish with English summary.] Ann. ent. fenn., Helsinki **19** : 25–29.

3014.—Rolston, L. H. & **Miner,** F. D. A new pinning unit. J. Kansas ent. Soc., Manhattan **26** : 146–147, 1 fig.

Romano, A. *see* Blight & Romano.

3015.—[Romanova, V. P.] Egg-eaters of the noxious little tortoise according to observations in the province of Rostov. [In Russian.] Zool. Zhurn., Moscow **32** : 238–248. [Hym., Hem.]

3016.—Ronchetti, G. Ricerche sperimentali sulla igroreazione di artropodi. Primo contributo alla conoscenza della igroreazione di insetti. Boll. Soc. ent. ital., Genoa **83** : 114–125.

3017.—Ronchetti, G. & **Pavan,** M. *Parabathyscia dematteisi* nuova specie di Coleottero cavernicolo italiano (Coleopt. Catopidae). Boll. Soc. ent. ital., Genoa **83** : 51–55, 20 figs.

3018.—Roonwal, M. L. Unusual population eruption of the moth, *Lymantria mathura* Moore, in autumn. Curr. Sci., Bangalore **22** : 384. [Lep.]

3019.—Roonwal, M. L. Systematics of Oriental termites : no. 1. A new species of termite, *Heterotermes gertrudae*, sp. nov., from North India (Isoptera, family Rhinotermitidae). Indian J. Ent., New Delhi **15** : 115–118, 1 fig.

3020.—Roonwal, M. L. Food-preference experiments on the desert locust, *Schistocerca gregaria* (Forskal), in its permanent breeding grounds in Mekran (southern Baluchistan) (Insecta, Orthoptera, Acrididae). J. zool. Soc. India, Calcutta **5** : 44–58, 3 figs.

3021.—Roonwal, M. L., **Mathur,** R. N., **Bhasin,** G. D., **Singh,** B., **Pant,** G. D., **Chandra,** A., **Katiyar,** K. N. & **Mathur,** R. K. A systematic catalogue of the main identified entomological collection at the Forest Research Institute, Dehra Dun. Parts 9–21. Orders Isoptera, Embioptera, Psocoptera, Anoplura, Ephemeroptera, Odonata, Thysanoptera and Hemiptera. Indian For. Leafil., Calcutta no. 121 (pt. 3): 39–187.

3022.—Roos, G. *Clossiana frigga frigga* (Thnbg.) ab. *exmacula* (Lep. Rhop.). Opusc. ent., Lund **18** : 229–230, 1 fig.

Rosen, L. *see* Stone & Rosen.

3023.—Rosický, B. Klassifikation der Uebertrager in den natürlichen Herden von Infektionskrankheiten. [In Russian with German summary.] Chekh. Biol., Prague **2** : 32–38, 1 fig.

Rosický, B. *see* Kramář, Weiser & Rosický.

3024.—Ross, D. A. Key to puparia of the Dipterous parasites of *Malacosoma* spp., in British Columbia. Proc. ent. Soc. Br. Columbia, Vernon **49** : 19–20, 3 pls. [Lep.]

3025.—Ross, H. H. On the origin and composition of the Nearctic insect fauna. Evolution, Lancaster, Pa. **7** : 145–158, 7 figs.

3026.—Ross, H. H. Additional material on the phylogeny and dispersal of *Atopsyche* (Trichoptera : Rhyacophilidae). J. Wash. Acad. Sci. **43** : 287–293, 9 figs.

3027.—Ross, H. H. & **DeLong,** D. M. Biological and taxonomic notes on *Erythroneura* (Homoptera, Cicadellidae). Ohio J. Sci., Columbus **53** : 77–90, 29 figs.

3028.—Ross, H. H. & **Hwang,** Chi-Ling. Some interesting Chinese species of *Glossosoma* (Trichoptera, Rhyacophilidae). Proc. ent. Soc. Wash. **55** : 6–9, 3 figs.

3029.—Ross, H. H. & **King,** E. W. A key to the World genera of the caddisfly tribe Hydrobiosini (Trichoptera, Rhyacophilidas). Acta zool. lilloana, Tucuman **12** (1951) 1952 : 501–508, 5 figs.

3030.—Roth, A. R. & **Hoffman,** R. A. A new method of tagging insects with P^{32}. J. econ. Ent., Menasha **45** (1952) : 1091.

Roth, L. M. *see* Loconti & Roth.

Roth, M. *see* Lavie & Roth.

3031.—Rothfels, K. H. & **Dunbar,** R. W. The salivary gland chromosomes of the black fly *Simulium vittatum* Zett. Canad. J. Zool., Ottawa **31** : 226–241, 4 pls. 1 fig. [Dipt.]

Rothschild, M. *see* Hopkins & Rothschild.

3032.—Roubal, J. Katalog Coleopter (brouků) slovenska a východních Karpat. III. Prague, 1937–1941 [? 1941] 363 pp.

3033.—Roubal, J. Coleoptera nova faunae bohemicae—pars 48. [In Czech.] Acta Mus. Siles., Opava (A) **2** 1952 : 47–48.

3034.—Roubal, J. Les notes systématiques et chlorogiques concernant l'*Agriotes gallicus* Lac. et la *Chrysobothris igniventris* Reitt. [In Czech with French summary.] Acta Mus. Siles., Opava (A) **2** 1952 : 48–50. [Col.]

3035.—Roubaud, E. Fluctuations spontanées dans la dispersion des culicides, observées dans la Vendée cotière depuis l'occupation allemande. Interprétation du problème. Bull. Soc. Path. exot., Paris **46** : 595–604. [Dipt.]

3036.—Roubaud, E. La désocialisation chez l'abeille domestique (*Apis mellifica*). Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952 : 293–296. [Hym.]

3037.—Roubaud, E. Diapauses secondaires et diapauses substitutives dans l'évolution de certains insectes. C.R. Acad. Sci., Paris **236** : 2457–2459.

Roy, D. N. *see* Mitra & Roy.

3038.—Rozeboom, L. E. Sexual isolation in some North American *Anopheles* mosquitoes. Amer. J. trop. Med. Hyg., Baltimore **2** : 677–682. [Dipt.]

3039.—Rozsypal, J. *Entomophthora zabrii* nova sp. a parasite of larvae of *Zabrus tenebrioides*. [In Czech with English summary.] Ann. czech. Acad. Agric., Prague **24** 1951 : 85–94, 12 figs. [Col.]

3040.—Rozsypal, J. *Dyspessa ulula* Bkh. Ein Schädling am Zwiebelgemüse. [In Czech with German summary.] Zool. ent. Listy, Brno **1** 1952 : 137–150, 3 pls. 2 figs. [Lep.]

3041.—[Rubtsov, I. A.] Bloodsucking midges of the flood area of the river Ural. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952 : 182–189. [Dipt.]

3042.—[Rubtsov, I. A.] Concerning the mass increase of insects (influence of parasites and predators on the fluctuations of the abundance of hosts). [In Russian.] Zool. Zhurn., Moscow **32** : 321–327.

3043.—[Rubtsov, I. A.] Contribution to the morphology of the external sexual appendages of Diptera. [In Russian.] Zool. Zhurn., Moscow **32** : 608–625, 7 figs.

3044.—[Rudnev, D. F.] The most important noxious insects of the forests of the Trans-Carpathian region. [In Russian.] Zool. Zhurn., Moscow **32** : 1141–1155, 4 figs.

Ruffinelli, A. *see* Bosq & Ruffinelli.

3045.—Ruiter, L. de. Camouflage in het dennenbos. I. De dennepijlstaart. Levende Nat., Amsterdam **56** : 41–48, 4 figs. [Lep.]

3046.—Ruiz Castro, A. Fauna entomológica del olivo en España. Estudio sistemático-biológico de las

especies de mayor importancia económica II (Hemíptera, Lepidóptera y Thysanóptera). Madrid, Inst. esp. Ent. 1951 : 7–166, 79 figs.

3047.—Rungs, C. Un nouveau Cérambycide marocain. Bull. Soc. ent. Fr., Paris **57** (1952) : 146–147. [Col.]

3048.—Rungs, C. Le complexe de *Leucania loreyi* auct. nec Dup. (Lep. Phalaenidae). Bull. Soc. ent. Fr., Paris **58** : 138–141, 2 figs.

3049.—Rungs, C. Contribution à la connaissance des ennemies de l'arganier *Argania spinosa* (L.). Bull. Soc. Sci. nat. Maroc, Rabat **32** (1952) : 61–76.

3050.—Rungs, C. Deux nouvelles Cucullianae marocaines (Lep. Phalaenidae). C.R. Soc. Sci. nat. Maroc, Rabat **1952** : 137–139, 2 figs.

3051.—Ruppel, H. Physiologische Untersuchungen über die Bedeutung des Ventraltubus und die Atmung der Collembolen. Zool. Jb., Jena (Allg. Zool.) **64** : 429–469, 18 figs.

3052.—Ruppel, R. F. & **DeLong,** D. M. Ten new species of Mexican *Dikrella* (Homoptera-Cicadellidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 1–9, 2 pls.

3053.—Ruppel, R. F. & **DeLong,** D. M. Mexican *Alconeura*-Parts II, III. Lloydia, Cincinnati **15** (1952) : 241–245, 246–250, 6 figs. [Hem.]

3054.—Ruppel, R. F. & **DeLong,** D. M. Three new species of Typhlocybine leafhoppers from Mexico (Homoptera : Cicadellidae). Ohio J. Sci., Columbus **53** : 181–182, 1 fig.

3055.—Ruppel, R. F. & **DeLong,** D. M. Some new species of *Protalebra* from Mexico (Homoptera : Cicadellidae). Ohio J. Sci., Columbus **53** : 226–229, 5 figs.

3056.—Ruppel, R. F. & **DeLong,** D. M. Four new species of *Joruma* from Mexico (Homoptera : Cicadellidae). Ohio J. Sci., Columbus **53** : 340–342, 1 pl.

3057.—Ruppel, R. F. & **DeLong,** D. M. Three new species of *Dikraneura* from Mexico (Homoptera : Cicadellidae). Ohio J. Sci., Columbus **53** : 349–350, 3 figs.

Ruppel, R. F. *see* Pappas & Ruppel.

3058.—Russ, K. Beiträge zur Atmungsphysiologie und Biologie von *Calliophrys* und *Atherix* (Ins., Dipt.). Erster Teil. Bau und Funktion der Atmungsorgane. Oest. zool. Z., Vienna **4** : 146–167, 24 figs.

3059.—Russell, M. C. Notes on insects associated with sundews (*Drosera*) at Lesmurdie. W. Aust. Nat., Perth **4** : 9–12.

3060.—Ruter, G. Description d'un Cétonide nouveau (Col. Scarabaeidae). Bull. Soc. ent. Fr., Paris **58** : 65–67, 8 figs.

3061.—Ruter, G. Description d'un Cétonide nouveau du Cameroun (Col. Scarab.). Rev. franç. Ent., Paris **20** : 32–34, 1 fig.

3062.—Ruter, G. Description d'un Cétonide nouveau du Congo belge. Rev. Zool. Bot. afr., Brussels **48** : 124–127, 3 figs. [Col.]

3063.—Ruttner, F. Ueber die Verbreitung einiger Rassenmerkmale bei der Honigbiene (*Apis mellifera*). Vorläufige Mitteilung. Oest. zool. Z., Vienna **4** : 183–190, 4 figs. [Hym.]

Ryabinina, M. I. *see* Éllengorn & Ryabinina.

Ryan, M. T. *see* Krause & Ryan.

3064.—Rybicki, M. The participation of the intestinal microflora in the nourishing processes of larvae of *Galleria mellonella*. Ann. Univ. M. Curie-Skłodowska, Lublin (C) **8** 1952 : 15–66, 1 pl. [Lep.]

3065.—Ryckman, R. E. Notes on the ecology of *Bombus sonorus* in Orange County, California and new parasite records (Hymenoptera : Bombidae. Diptera : Sarcophagidae, Conopidae, Phoridae). Pan-Pacif. Ent., San Francisco **29** : 144–146, 1 fig.

3066.—Ryckman, R. E. *Cuterebra latifrons* reared from *Neotoma fuscipes macrotis* (Diptera : Cuterebridae). Pan-Pacif. Ent., San Francisco **29** : 155–156, 1 fig.

3067.—Ryckman, R. E. & **Ames,** C. T. Insects reared from cacti in Arizona (Dermaptera, Coleoptera, Diptera). Pan-Pacif. Ent., San Francisco **29** : 163–164.

3068.—Ryckman, R. E. & **Deem,** B. A. A new label for microscope slides. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 67–68.

3069.—Rydén, H. & **Carlgren,** G. Fjärilfaunistiska notiser (Macrolep.). Opusc. ent., Lund **18** : 49–52.

3070.—Rydén, N. Agromyziden aus Island. Ent. Medd., Copenhagen **26** : 465–468. [Dipt.]

3071.—Rydén, N. Zur Kenntnis der schwedischen Minierer. XVI. Ueber Agromyziden-Arten Zetterstedts und Falléns. Opusc. ent., Lund **18** : 13–16. [Dipt.]

3072.—Sabrosky, C. W. A new North American species of *Metopia* (Diptera, Sarcophagidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 50–53.

3073.—Sabrosky, C. W. Two new species of Milichiidae, with miscellaneous notes on the family (Diptera). Ent. News, Lancaster, Pa. **64** : 38–42.

3074.—Sabrosky, C. W. The scientific name of the screw-worm, with a note on *Paralucilia fulvicrura* (Diptera, Calliphoridae). Proc. ent. Soc. Wash. **55** : 36–38.

3075.—Sabrosky, C. W. Taxonomy and host relations of the tribe Ormiini in the Western Hemisphere (Diptera, Larvaevoridae). I, II. Proc. ent. Soc. Wash. **55** : 167–183, 290–305.

3076.—Sabrosky, C. W. How many insects are there ? Syst. Zool., Washington, D.C. **2** : 31–36.

3077.—Sacarrão, G. F. On blastokinesis in Cephalopoda and Insecta. Arq. Mus. Bocage, Lisbon **22** (1951) [? 1953] : 91–95.

3078.—Saccà, G. Contributo alla conoscenza tassonomica del gruppo *domestica* (Diptera, Muscidae). R.C. Ist. sup. Sanit., Rome **16** : 442–464, 4 col. pls. 3 figs. ; also in Riv. Parassit., Rome **14** : 97–114, 3 figs.

3079.—Saccà, G. Variabilità fenotipica in *Musca domestica* L. R.C. Ist. sup. Sanit., Rome **16** : 465–470, 1 fig. ; also in Boll. Zool., Naples **19** 1952 : 293–296, 1 fig. [Dipt.]

3080.—Saccà, G. & **Rivosecchi,** L. Contributo alla conoscenza faunistica del genere *Sarcophaga* in Italia (Diptera, Calliphoridae). Riv. Parassit., Rome **14** : 37–47.

3081.—Sachs, H. G. Bienenfeind Nr. 1. Mikrokosmos, Stuttgart **42** : 121–124, 4 figs. [Hym.]

3082.—Sacktor, B. Investigations on the mitochondria of the house fly, *Musca domestica* L. I. Adenosinetriphosphatoses. J. gen. Physiol., Baltimore **36** : 371–387, 6 figs. [Dipt.]

3083.—Sacktor, B., **Thomas,** G. M., **Moser,** J. C. & **Bloch,** D. I. Dephosphorylation of adenosine triphosphate by tissues of the American cockroach *Periplaneta americana* (L.). Biol. Bull., Lancaster, Pa. **105** : 166–173. 1 fig. [Orth.]

Sacy *see* Silvestre de Sacy.

3084.—Sadil, J. V. A revision of the Czechoslovak forms of the genus *Myrmica* Latr. (Hym.). Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 392 : 233–278, 11 figs.

3085.—Sahrhage, D. Oekologische Untersuchungen an *Thermobia domestica* (Packard) und *Lepisma saccharina* L. Z. wiss. Zool., Leipzig **157** : 77–168, 42 figs. [Thysanura.]

3086.—Sailer, R. I. A note on the bionomics of the green stink bug (Hemiptera : Pentatomidae). J. Kansas ent. Soc., Manhattan **26** : 70–71.

3087.—Sailer, R. I. The New-World distribution of *Alydus calcaratus* (L.) with comment on the disposal of the name *Coriscus* Schrank, 1796 (Hemiptera, Coreidae). Proc. ent. Soc. Washington **55** : 315–318, 5 figs.

Sailer, R. I. *see* Barber & Sailer ; Carvalho & Sailer.

3088.—St. Quentin, D. Der Fangapparat der Odonaten. Oest. zool. Z., Vienna **4** : 375–390, 8 figs.

Saito, K. *see* Makino & Saito.

3089.—Saitoh, K. Interracial gonadal transplantation carried out between larvae of strong and weak races of *Lymantria dispar* L. [In Japanese with English summary.] Zool. Mag., Tokyo **61** 1952 : 303–308, 7 figs. [Lep.]

3090.—Sakagami, S. F. Ueber *Bombus* (*Diversobombus*) *diversus* Smith (Systematische Studien der Hummeln IV). J. Fac. Sci. Hokkaido Univ., Sapporo (Zool.) **11**: 182–192, 4 figs. [Hym.]

3091.—Sakagami, S. F. Zur Hummelfauna von Formosa. Systematische Studien der Hummeln I. [In Japanese with German summary.] Kontyû, Tokyo **18** 1950: 104–113. [Hym.] [Not seen.]

3092.—Sakagami, S. F. Zur Cynipoidenfauna Japans und seiner Nachbarländer (Hymenoptera). Mushi, Fukuoka **24** 1952: 67–79.

3093.—Sakamoto, Y. Mechanism of expression of telescoped[2] in *Drosophila virilis*, (VI). Sci. Rep. Tôhoku Univ. (4) **20**: 98–101. [Dipt.]

3094.—Salkeld, E. H. & **Potter,** C. The effect of the age and stage of development of insect eggs on their resistance to insecticides. Bull. ent. Res., London **44**: 527–580, 27 figs. [Lep., Hem.]

3095.—Salt, R. W. The influence of food on cold hardiness of insects. Canad. Ent., Ottawa **85**: 261–269.

Salzano, F. M. *see* Cunha, Brncic & Salzano; Jaeger & Salzano.

3096.—Samuel, C. K. & **Joseph,** T. On two new forms of Reduviids collected from Delhi (India). Indian J. Ent., New Delhi **15**: 29–32, 2 figs. [Hem.]

3097.—Sanborn, C. C. & **Hoogstraal,** H. Some mammals of Yemen and their ectoparasites. Fieldiana Zool., Chicago **34**: 229–252.

3098.—Sanders, H. Hymenoptera Aculeata V. Over enkele zeldzame bijen. Natuurh. Maandbl., Maastricht **42**: 98–101.

3099.—Sanderson, M. W. New species and a new genus of New World Elmidae with supplemental keys. Coleopt. Bull., Washington, D.C. **7**: 33–40, 4 figs.

3100.—Sanderson, M. W. A revision of the Nearctic genera of Elmidae (Coleoptera). [To be contd.] J. Kansas ent. Soc., Manhattan **26**: 148–163, 3 pls.

Sanderson, M. W. *see* Becker & Sanderson.

Sang, J. H. *see* Fraile & Sang.

Santa, H. *see* Matsumoto, Santa & Otuka; Matsumoto, Yushima & Santa; Otuka, Santa & Suto.

Santis *see* De Santis.

Santos *see* Dias dos Santos.

Santos Dias *see* Travassos Santos Dias.

3101.—Sarà, M. Specie nuove di Psicodidi dall'Italia centrale e dalla Sicilia (Diptera). Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 8: 1–30, 9 figs.

3102.—Sarà, M. & **Smerdel,** A. Morfologia del dermascheletro del torace di *Asilus crabroniformis* L. (Dipt. Asilidae). Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 3: 1–31, 8 figs.

Saris, N.-E. *see* Lindberg & Saris.

3103.—Sarkar, I. & **Ray Chaudhuri,** S. P. Effect of pyrogallol and pyrocatechol on the meiotic chromosomes of the grasshopper, *Gesonia punctifrons*. Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts: 179. [Orth.]

3104.—Sarlet, L. Iconographie des oeufs de Lépidoptères (Faune de la Belgique) (suite). Lambillionea, Brussels **53**: 26–32, 54–63.

3105.—Sarma, P. S. Easy technique of dissecting the mouth parts of sucking-lice (Insecta: Anoplura). Curr. Sci., Bangalore **22**: 47.

Sarma, P. S. *see* Sundaram, Radhakrishnamurty, Shanmugasundaram & Sarma; Sundaram & Sarma.

3106.—Sasa, M. & others. Studies on seasonal occurrence and zoophilism of mosquitoes, 1948–1950. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1950: 50–58. [Dipt.]

3107.—Sasakawa, M. (formerly **Tsujita,** M.) Descriptions and records of Dipterous leaf-miners from Japan (Agromyzidae) I. Sci. Reps Saikyo Univ., Kyoto Agric. no. **4**: 9–22, 10 figs.

3108.—Sasakawa, M. (formerly **Tsujita,** M.) Some leaf-miners of the Compositae found in Kyoto (Dipt., Agromyzidae). [In Japanese with English summary.] Sci. Reps Saikyo Univ., Kyoto Agric. no. **4**: 116–125, 5 figs.

3109.—Sasakawa, M. (formerly **Tsujita,** M.) & **Koyama,** M. Galls found on *Fagus crenata* Blume, with description of a new species (Dipt., Cecidomyidae). Sci. Reps Saikyo Univ., Kyoto Agric. no. **4**: 4–8, 9 figs.

Sasaki, K. *see* Ishihara, Miyatake, Hisamatsu, Edashige & Sasaki.

3110.—Satchell, G. H. The Australian Psychodidae (Diptera), Part I. Aust. J. Zool., Melbourne **1**: 357–418, 31 figs.

3111.—Satchell, G. H. On the early stages of *Bruchomyia argentina* Alexander (Diptera: Psychodidae). Proc. R. ent. Soc. London (A) **28**: 1–12, 14 figs.

3112.—Satchell, G. H. New and little known Samoan Psychodidae and a new species from Rarotonga. Proc. R. ent. Soc. London (B) **22**: 181–188, 5 figs. [Dipt.]

3113.—Satô, S. Structure and development of the compound eye of *Aedes* (*Finlaya*) *japonicus* Theobald (Morphological studies of the compound eye in the mosquito, no. III). Sci. Rep. Tôhoku Univ., Sendai (4) **20** no. 1: 33–44, 6 figs. [Dipt.]

3114.—Satô, S. Structure and development of the compound eye of *Anopheles hyrcanus sinensis* Wiedemann (Morphological studies of the compound eye in the mosquito, no. IV). Sci. Rep. Tôhoku Univ., Sendai (4) **20** no. 1: 45–53, 6 figs. [Dipt.]

3115.—Sauter, W. Zur Biologie des Gabelschwanzes *Dicranura vinula* L. (Lep. Notodontidae). Mitt. thurg. naturf. Ges., Frauenfeld **34** 1947: 33–38.

3116.—[Savchenko, E. N.] New species of crane-flies (Diptera, Tipulidae) of the Caucasus and northern Persia. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1952: 321–349, 12 figs.

3117.—Sawada, H. Pleurostict Lamellicornia of the Loochoo Archipelago. [In Japanese with English summary and descriptions.] J. Agric. Sci., Tokyo **2** 1950: 257–317. [Col.] [Not seen.]

3118.—Saxena, K. N. Feeding habits and the physiology of the alimentary canal of certain leafhoppers (Jassidae: Homoptera). Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts: 194.

3119.—Saxena, K. N. Organs of digestion and excretion in the Jassidae (Homoptera). Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts: 194–195.

3120.—Saxena, K. N. The musculature and its postembryonic development in certain Jassids (Homoptera). Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts: 195.

3121.—Saxena, O. N. Musculature of *Mylabris pustulata* Thunb. (Coleoptera). Agra Univ. J. Res. (Sci.) **2**: 285–307, 7 figs.

3122.—Saxena, P. N. The head musculature of the firefly *Luciola gorhami* Rits. (Lampyridae Coleoptera). Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts: 197–198.

3123.—Saxena, P. N. The digestive system of the firefly, *Luciola gorhami* Ritsema (Coleoptera: Lampyridae). Proc. zool. Soc. Bengal, Calcutta **6**: 125–129, 3 figs.

3124.—Schadewald, G. Beiträge zur Lebensweise einiger Schmetterlings-Arten. NachrBl. bayer. Ent., Munich **2**: 41–44. [Lep.]

3125.—Schaefer, L. Saint-Guilhem-le-Désert (Hérault), localité entomologique remarquable. Entomologiste, Paris **8** 1952: 136–150.

3126.—Schäfer, R. & **Becker,** H. Ueber die Tätigkeit des Dorsalgefässes bei *Aphis sambuci* L. nach Begiftung mit verschiedenen Insektiziden. Z. PflKrankh., Stuttgart **60**: 348–354, 1 fig. [Hem.]

3127.—Schaller, F. Das Fortpflanzungsverhalten apterygoter Insekten (Collembolen und Machiliden). Verh. dtsch. zool. Ges., Leipzig **1952**: 184–189, 8 figs.

3128.—Schaller, F. Untersuchungen zur Fortpflanzungs biologie arthropleoner Collembolen. Z. Morph. Oekol. Tiere, Berlin **41**: 265–277, 6 figs.

3129.—Schatz, L. The development and differentiation of arthropod procuticle: staining. Ann. ent. Soc. Amer., Columbus **45** (1952): 678–686, 1 pl.

3130.—Schawerda, K. Wanderungen im Grenzgebiet Vorarlbergs und des anschliessenden Tirols (Rätikon, Silvretta, Nauders und Gepatsch). Dtsch. ent. Z., Iris, Dresden **55** (1941) 1942: 3–16, 2 pls. [Lep.]

3131.—Schedl, K. E. Die kleine Fichtenblattwespe (*Lygaeonematus pini* Retz.) verbunden mit einem Bericht über die in Kärnten in den Jahren 1950–51 aufgetretenen Forstschäden und deren Bekämpfung. Mariabrunn, Forstliche Bundesversuchsanstalt 180 pp. 62 figs. 2 maps (1 fldg.). [Hym.]

3132.—Schedl, K. E. Fauna argentinensis V. Acta zool. lilloana, Tucuman **12** (1951) 1952: 443–463. [Col.]

3133.—Schedl, K. E. Fauna indomalayensis.—III. Ann. Mag. nat. Hist., London (12) **6**: 288–304. [Col.]

3134.—Schedl, K. E. Scolytidae d'Alsace. Bull. Ass. philom. Als. Lorr., Strasbourg **9** 1952 fasc. 1: 86–88. [Col.]

3135.—Schedl, K. E. Fauna sinensis I. Ent. Bl., Krefeld **49**: 22–30, 1 fig. [Col.]

3136.—Schedl, K. E. Fauna madagascariensis—III. Mém. Inst. sci. Madagascar, Tananarive (E) **3**: 67–106, 13 figs. [Col.]

3137.—Schedl, K. E. New Scolytoidea. Mem. Qd Mus., Brisbane **13**: 80–83, 3 figs. [Col.]

3138.—Schedl, K. E. Formosan Scolytoidea, I. Philipp. J. Sci., Manila **81** 1952: 61–65. [Col.]

3139.—Schedl, K. E. Bark and ambrosia-beetles from Indochina. Rev. franç. Ent., Paris **20**: 123–130, 2 figs. [Col.]

3140.—Schedl, K. E. Scolytoidea congolais. III. Rev. Zool. Bot. afr., Tervuren **47**: 241–248. [Col.]

3141.—Scheerpeltz, O. Rindenbewohnende Staphyliniden aus Guatemala (Coleoptera). Beitr. Ent., Berlin **3**: 600–610.

3142.—Scheerpeltz, O. Una nuova specie alpina del genere *Quedius* Steph. (Coleopt. Staphyl.) Boll. Soc. ent. ital., Genoa **83**: 130–133, 2 figs.

3143.—Scheerpeltz, O. *Rhombopisalia*, eine neue Untergattung der Grossgattung *Leptusa* Kr., mit einer Bestimmungstabelle der bis jetzt aus dieser Untergattung bekannt gewordenen Arten (Col. Staphylinidae). Studi trentini, Trento **30**: 65–77, 6 figs.

3144.—Schein, H. Ein neuer *Bombodes* und *Bombodes*-Tabelle (Col. Ceton.). Ent. Bl., Krefeld **49**: 118–119.

3145.—Schein, H. Ueber asiatische *Coenochilus* (Coleoptera, Cetoniidae) mit einer Bestimmungstabelle. Zool. Meded., Leiden **32**: 31–40.

3146.—Scherney, F. Zur Biologie der an Raps vorkommenden *Meligethes*arten. Z. PflBau, Munich **4**: 154–176, 9 figs. [Col.]

3147.—Schick, W. Ueber die Wirkung von Giftstoffen auf die Tänze der Bienen. Z. vergl. Physiol., Berlin **35**: 105–128, 8 figs. [Hym.]

3148.—Schiemenz, H. Zum Farbwechsel bei heimischen Heteropteren unter besonderer Berücksichtigung von *Palomena* Muls. & Rey. Beitr. Ent., Berlin **3**: 359–371, 4 figs. [Hem.]

3149.—Schiemenz, H. Ein idealer Fall von Gynandromorphismus bei *Aeschna cyanea* Müll. (Odonata). Beitr. Ent., Berlin **3**: 563–569, 1 pl. 8 figs.

3150.—Schiemenz, H. Beiträge zur Verbreitung seltener Odonaten in Deutschland. Beitr. Ent., Berlin **3**: 671–676.

3151.—Schilder, F. A. Nomenklatorische Notizen zu *Cicindela* (Coleoptera). Beitr. Ent., Berlin **3**: 312–319.

3152.—Schilder, F. A. Neue Variationsstudien an Coccinelliden. Wiss. Z. Univ. Halle **2**: 143–163, 13 figs. [Col.]

3153.—Schilder, F. A. Studien zur Evolution von *Cicindela*. Wiss. Z. Univ. Halle **3**: 539–571, 2 figs. (1 fldg.). [Col.]

3154.—Schimitschek, E. Forstentomologische Studien im Urwald Rotwald. Teile II u. III. Z. angew. Ent., Berlin **34**: 513–542, 17 figs., **35**: 1–54.

Schimitschek, G. *see* Jahn & Schimitschek.

3155.—Schlegel - Oprecht, E. Versuche zur Auflösung von Mutationen bei der zoophagen Cynipide *Pseudeucoila bochei* Weld und Befunde über die stammspezifische Abwehrreaktion des Wirtes *Drosophila melanogaster*. Z. indukt. Abstamm.- u. VererbLehre, Berlin **85**: 245–281, 12 figs. [Hym., Dipt.]

3156.—Schmid, F. Contribution à l'étude de la sous-famille des Apataniinae (Trichoptera, Limnophilidae) I. Tijdschr. Ent., Amsterdam **96**: 109–167, 35 figs.

3157.—Schmidlin, A. *Alispa angustella* Hb. (Pyralididae, Lep.), neu für das Bernische Mittelland. Mitt. ent. Ges. Basel (N.F.) **3**: 1–6.

3158.—Schmidt, E. Zwei neue Libellen aus dem Nahen Osten. Mitt. münch. ent. Ges., Munich **43**: 1–9, 4 figs. [Odon.]

3159.—Schmidt, E. Ueber das "Schlusslicht" am Abdomenende von Libellen. Naturwissenschaften, Berlin **40**: 335. [Odon.]

3160.—Schmidt, E. L. & **Williams,** C. M. Physiology of insect diapause. V. Assay of the growth and differentiation hormone of Lepidoptera by the method of tissue culture. Biol. Bull., Lancaster, Pa. **105**: 174–187, 1 fig.

3161.—Schmidt, G. & **Krahmer,** M. W. Bemerkungen zur Verbreitung und Variabilität von *Strangalia attenuata* L. (Cerambycidae). Ent. Bl., Krefeld **49**: 185–189. [Col.]

3162.—Schmidt, H. Untersuchungen zur Trophobiose der Ameisen. I. Mitteilung. Morphologie und Oekologie der perianalen Haarkranzes der Aphiden. Z. Morph. Oekol. Tiere, Berlin **41** 1952: 223–246, 13 figs. [Hym., Hem.]

3163.—Schmidt, W. *Herbstiala herbsti* n.g., n. sp. (Herbstialidae n. fam., Protocicadida), das erste Insekt aus dem Erkelenzer Karbon (Westfal A). Paläont. Z., Stuttgart **27**: 149–168, 1 pl. 1 fig. [Fossil.]

3164.—Schmieder, R. G. More about bees' dances for directing the swarm. Ent. News, Lancaster, Pa. **64**: 262–265. [Hym.]

3165.—Schmitz, H. Ungarische und andere paläarktische Phoriden des Ungarischen Nationalmuseums (Diptera). Ann. hist.-nat. Mus. hung., Budapest (N.S.) **3**: 203–211, 4 figs.

3166.—Schmitz, H. Phoridae. *In* Lindner, Flieg. palaearkt. Reg. **33** 1952: 273–320, 1 pl. 15 figs. [Dipt.]

3167.—Schmitz, H. Die wachsende Zahl der als termitophil bekannten Phoriden (Diptera). Naturwissenschaften, Berlin **40**: 36–37, 1 fig.

3168.—Schmitz, H. J. W. Zetterstedts Phoriden nach den in Lund vorhandenen Sammlungen. Opusc. ent., Lund **18**: 124–140. [Dipt.]

3169.—Schmitz, H. Ueber die Gattung *Plethysmochaeta* Schmitz, mit Beschreibung neuer Arten (Diptera, Phoridae). Rev. Zool. Bot. afr., Tervuren **47**: 297–310, 4 figs.

3170.—Schmitz, H. Vier neue *Megaselia* aus den österreichischen Alpen (Diptera). Tijdschr. Ent., Amsterdam **96**: 219–225, 8 figs.

3171.—Schmölzer, K. Die Kartierung von Tiergemeinschaften in der Biozönotik. Oest. zool. Z., Vienna **4**: 356–362, 1 fig.

3172.—Schmutterer, H. Ergebnisse von Zehrwespenzuchten aus Schildläusen (Hymenoptera: Chalcidoidea) 1. Teil. Beitr. Ent., Berlin **3**: 55–69.

3173.—Schmutterer, H. Zur Lachnidenfauna Bayerns (Homoptera: Aphidoidea: Lachnidae). NachrBl. bayer. Ent., Munich **2**: 86–87, 92–94.

3174.—Schmutterer, H. Aphiden und Cocciden als Honigtauerzeuger auf Laubhölzern. Z. angew. Ent., Berlin **34** : 607–612, 5 figs. [Hem.]

3175.—Schneider, F. Untersuchungen über die optische Orientierung der Maikäfer (*Melolontha vulgaris* F. und *M. hippocastani* F.) sowie über die Entstehung von Schwärmbahnen und Befallskonzentrationen. Mitt. schweiz. ent. Ges., Berne **25** 1952 : 269–340, 2 fldg. pls. 23 figs. [Col.]

3176.—Schneider, F. *Syrphus nigritarsis* Zett., ein Ei- und Larvenräuber von *Melasoma* (Chrysom., Col.). Tijdschr. PlZiekt., Wageningen **59** : 192–194, 1 pl. [Dipt.]

3177.—Schneider, G. Untersuchungen über die Funktion der Halteren. Verh. dtsch. zool. Ges., Berlin **1951** 1952 : 195–199, 1 fig. [Dipt.]

3178.—Schneider, H. Lichtfang mit verschiedenen Lichtquellen und andere Nachtfangmethoden in Südamerika. Dtsch. ent. Z., Iris, Dresden **54** (1940) 1941 : 35–46.

3179.—Schneider, H. Fangreisen in Uruguay. Dtsch. ent. Z., Iris, Dresden **54** (1940) 1941 : 46–70, 1 pl. [Lep.]

3180.—Schneidermann, H. A., **Ketchel,** M. & **Williams,** C. M. The physiology of insect diapause. VI. Effects of temperature, oxygen tension, and metabolic inhibitors on in vitro spermatogenesis in the Cecropia silkworm. Biol. Bull., Lancaster, Pa. **105** : 188–199, 5 figs. [Lep.]

3181.—Schneidermann, H. A. & **Williams,** C. M. The physiology of insect diapause. VII. The respiratory metabolism of the Cecropia silkworm during diapause and development. Biol. Bull., Lancaster, Pa. **105** : 320–334, 7 figs. [Lep.]

3182.—Schneidermann, H. A. & **Williams,** C. M. Discontinuous carbon dioxide output by diapausing pupae of the giant silkworm, *Platysamia cecropia*. (Abstract.) Biol. Bull., Lancaster, Pa. **105** : 382. [Lep.]

3183.—Schneirla, T. C. Basic correlations and coordinations in insect societies with special reference to ants. Colloq. int. Cent. nat. Rech. sci., Paris **34** 1952 : 247–269, 4 figs. [Hym.]

3184.—Scholander, P. F., **Flagg,** W., **Hock,** R. J. & **Irving,** L. Studies on the physiology of frozen plants and animals in the Arctic. J. cell. comp. Physiol., Philadelphia **42** Suppl. 1 : 1–56.

3185.—Schöne, H. Farbhelligkeit und Farbunterscheidung bei den Wasserkäfern *Dytiscus marginalis*, *Acilius sulcatus* und ihren Larven. Z. vergl. Physiol., Berlin **35** : 27–35, 3 figs. [Col.]

3186.—Schöning, R. v. Biologisch-ökologische Untersuchungen an *Byturus tomentosus* Fabr. und *fumatus* Fabr. Beitr. Ent., Berlin **3** : 627–652, 9 figs. [Col.]

3187.—Schoof, H. F. & **Mail,** G. A. Dispersal habits of *Phormia regina* in Charleston, West Virginia. J. econ. Ent., Menasha **46** : 258–262, 2 figs. [Dipt.]

3188.—Schouteden, H. *Habrochila ghesquièrei* nov. spec. parasite du caféier (Hem. Tingididae). Rev. Zool. Bot. afr., Brussels **48** : 104–105.

3189.—Schouteden, H. Espèces nouvelles du genre *Cysteochila* (Hem. Tingididae). Rev. Zool. Bot. afr., Brussels **48** : 115–123.

3190.—Schouteden, H. *Haedus* et *Gitava* nouveaux de l'est du Congo belge (Hem. Tingididae). Rev. Zool. Bot. afr., Brussels **48** : 128–131.

3191.—Schouteden, H. Tingides congolais nouveaux. Rev. Zool. Bot. afr., Brussels **48** : 165–171. [Hem.]

3192.—Schouteden, H. *Monanthia* nouveaux du Congo belge et du Ruanda. Rev. Zool. Bot. afr., Brussels **48** : 196–201. [Hem.]

3193.—Schreiner, T. Ueber den Nahrungstransport im Darm der Honigbiene. Z. vergl. Physiol., Berlin **34** 1952 : 278–298, 2 figs. [Hym.]

3194.—Schreitmüller, W. *Gliricola porcelli* L. ein Ektoparasit des Meerschweinchens. Z. Säugetierk., Berlin **17** : 92. [Malloph.]

3195.—Schremmer, F. Die bisher unbekannte Larve von *Lasiopa villosa* Fabr. (Dipt., Stratiomyidae). Oest. zool. Z., Vienna **4**: 363–374, 4 figs.

3196.—Schuà, L. Untersuchungen über den Einfluss meteorologischer Elemente auf das Verhalten der Honigbienen (*Apis mellifica*). Z. vergl. Physiol., Berlin **34** 1952: 258–277, 14 figs. [Hym.]

3197.—Schubart, O. Ueber einen subtropischen Fluss Brasiliens, den Mogi-Guassú, insbesondere seine physikalischen Bedingungen wie Wasserstand, Temperatur und Sichttiefe. Arch. Hydrobiol., Stuttgart **48**: 350–430, 3 pls. 1 map.

3198.—Schuler, L. Note sur les *Megodontus* français (Col. Carabidae). Bull. Soc. ent. Fr., Paris **58**: 67–70.

3199.—Schulte, A. Die Variabilität von *Colias nastes* v. *werdandi* Zett. Ent. Z., Frankfurt a. M. **62**: 145–152, 159–160, 5 figs. [Lep.]

3200.—Schultz, V. G. M. Neue Beiträge zur Schmetterlingskunde. Nr. 28. Ueber die Raupe, die Puppe und eine anomale Falterform von *Scopula ternata* Schrk. (*Acidalia fumata* Steph.) (Lep. Geometridae). Z. wien. ent. Ges., Vienna **38**: 95–99, 1 pl.

3201.—Schuurmans Stekhoven, jr., J. H. Un representante raro del grupo de los Dípteros pupíparos. Una especie del género *Ascodipteron*, parásito de *Miniopterus schreibersi* Kuhl. Acta zool. lilloana, Tucuman **10** 1952: 479–487, 4 figs.

3202.—Schuurmans Stekhoven, jr., J. H. Algunas especies del género *Basilia* Ribeiro y creación del nuevo género *Guimarães*ia. Acta zool. lilloana, Tucuman **12** (1951) 1952: 101–115, 4 figs. [Dipt.]

3203.—Schuurmans Stekhoven, jr., J. H. Nuevos hechos relacionados con *Guimarães*ia *romañai* (Del Ponte). Acta zool. lilloana, Tucuman **12** (1951) 1952: 551–561, 3 figs. [Dipt.]

3204.—Schwartz, V. Zur Phänogenese der Flügelzeichnung von *Plodia interpunctella*. Z. indukt. Abstamm.- u. VererbLehre, Berlin **85**: 51–96, 24 figs. [Lep.]

Schwarz, R. *see* Paclt & Schwarz.

3205.—Schwenke, W. Biozönotik und angewandte Entomologie. Beitr. Ent., Berlin **3** Sonderheft: 86–162.

3206.—Schwenke, W. Biozönotische Betrachtungen zur biologischen Bekämpfung von Schadinsekten. Beitr. Ent., Berlin **3**: 529–536.

3207.—Schwerdtfeger, F. Die natürliche Regelung der Populationsdichte bei den Forstinsekten. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 203–209, 2 figs.

3208.—Schwetz, J. Sur un prédateur des mollusques d'eau douce de l'Afrique centrale. Ann. Soc. zool. Belg., Louvain **81** (1950) 1951: 145–146. [Col.]

3209.—Schwinck, I. Ueber den Sexualduftstoff der Pyraliden. Z. vergl. Physiol., Berlin **35**: 167–174, 1 fig. [Lep.]

3210.—Schwingenschuss, L. Beitrag zur Lepidopterenfauna von Niederösterreich: St. Peter i.d.Au, Seitenstetten und Umgebung. Z. wien. ent. Ges., Vienna **38**: 37–39, 77–78, 101–103, 142–144, 170–176, 196–198, 217–223, 251–255, 282–287, 309–311.

3211.—Scott, H. Discrimination of colours by *Bombylius* (Dipt., Bombyliidae). Ent. mon. Mag., London **89**: 259–260.

3212.—Scott, H. A large flight of water-beetles, and their attraction to light. Ent. mon. Mag., London **89**: 260–261. [Col.]

3213.—Scott, H. Journey to the Gughé Highlands (Southern Ethiopia), 1948–9; biogeographical research at high altitudes. Proc. Linn. Soc. London **163** 1952: 85–189, 26 pls. 7 figs. 1 map.

3214.—Seago, M. A new species of *Fannia* from North America (Diptera, Muscidae). J. Kans. ent. Soc., Manhattan **26**: 141–142.

3215.—Sebastian, V. O. A case of natural adaptability of *Anopheles* larvae to sea-water. Curr. Sci., Bangalore **22**: 23. [Dipt.]

Sedar, A. W. *see* Beams, Sedar & Evans.

3216.—Sedee, D. J. W. Qualitative vitamin requirements for growth of larvae of *Calliphora erythrocephala* (Meig.). Experientia, Basle **9** : 142–143. [Dipt.]

Šedivý, J. *see* Bouček, Půlpán & Šedivý.

3217.—Sedlag, U. Untersuchung über den Ventraltubus der Collembolen. Wiss. Z. Univ. Halle **1** 1952 : 93–127, 5 pls.

3218.—Seevers, C. H. Two new genera of myrmecophilous Staphylinidae from the Philippines. Philipp. J. Sci., Manila **81** : 125–129, 1 pl. [Col.]

3219.—Séguy, E. Description d'un *Cryptochaetum* marocain (Drosophilidae). Encycl. ent., Paris (B) II Dipt. **11** : 46.

3220.—Séguy, E. Deux nouveaux Diptères de la Côte d'Ivoire. Encycl. ent., Paris (B) II Dipt. **11** : 47–49.

3221.—Séguy, E. Un Therevide remarquable de Mauritanie. Encycl. ent., Paris (B) II Dipt. **11** : 50.

3222.—Séguy, E. Précisions sur le *Lonchaea claripennis* Macquart (Lonchaeidae). Encycl. ent., Paris (B) II Dipt. **11** : 56.

3223.—Séguy, E. Un nouveau Chloropide de Madagascar. Encycl. ent., Paris (B) II Dipt. **11** : 64.

3224.—Séguy, E. Diptères de Mauritanie. Encycl. ent., Paris (B) II Dipt. **11** : 65–71.

3225.—Séguy, E. Un nouveau Phytomyzide marocaine. Encycl. ent., Paris (B) II Dipt. **11** : 72.

3226.—Séguy, E. Diptères du Maroc. Encycl. ent., Paris (B) II Dipt. **11** : 77–92.

3227.—Séguy, E. Un Lycoriide nouveau du Groenland. Encycl. ent., Paris (B) II Dipt. **11** : 118.

3228.—Séguy, E. La réserve naturelle intégrale du Mt Nimba, fascicule 1. X. Diptères. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 151–164.

3229.—Séguy, E. Tabanides de Madagascar. I–IV. Mém. Inst. sci. Madagascar, Tananarive (A) **3** 1949 : 277–300, 9 figs.

3230.—Séguy, E. Un nouveau Calliphoride du Mozambique (Diptera). Rev. franç. Ent., Paris **20** : 160.

3231.—Séguy, E. Les *Nigidius* africains du Muséum de Paris (Coléopt. Lucanidae, Figulinae). Rev. franç. Ent., Paris **20** : 173–181, 20 figs.

Séguy, E. *see* Darge & Séguy; Didier & Séguy.

3232.—Seidenstuecker, G. Die plastische Modifikation des Flügels von *Pyrrhocoris apterus* Linné (Hemiptera-Heteroptera, Pyrrhocoridae). Beitr. Ent., Berlin **3** : 29–55, 128 figs.

3233.—Seidenstücker, G. *Gampsocoris enslinie* n. sp. Eine neue Metacanthine aus Kleinasien (Hem. Het. Neididae). Rev. Fac. Sci. Univ. Istanbul (B) **18** : 165–167, 1 fig.

3234.—Sellier, R. Le polymorphisme alaire chez *Pteronemobius heydeni* Fish. (Ins. Orthopt. Gryllidae). C.R. Acad. Sci., Paris **236** : 1918–1920.

3235.—Selman, G. C. & Counce, S. J. Abnormal embryonic development in *Drosophila* induced by ultrasonic treatment. Nature, London **172** : 503–504, 2 figs. [Dipt.]

Senevet, G. *see* Charles & Senevet.

3236.—Şengün, A. & Kosswig, C. Einwände gegen die Polytäntheorie des Baus der Riesenchromosomen. Verh. dtsch. zool. Ges., Leipzig **1952** : 269–275, 3 figs.

Şengün, A. *see* Kosswig & Şengün.

3237.—Senior White, R. A. On the evening biting activity of three Neotropical *Anopheles* in Trinidad, British West Indies. Bull. ent. Res., London **44** : 451–460. [Dipt.]

3238.—Senior White, R. A., Lewis, G. & Lee, P. On swarming and mating in *Anopheles aquasalis* Curry. Bull. ent. Res., London **44** : 163–173, 1 fig. [Dipt.]

Sen Sarma *see* Sarma.

3239.—Seok, D. M. Ankoraŭfoje pri la varieco de *Ypthima baldus* Fabricius de Koreujo. [In Japanese with Esperanto summary.] Zool. Mag., Tokyo **53** 1941 : 397–401, 5 figs. [Lep.]

3240.—Servadei, A. Hemiptera sardiniae (Heteroptera et Homoptera Auchenorhyncha). Redia, Florence **37** 1952 : 443–478.

3241.—Seshadri, A. R. Observations on *Trichinothrips breviceps* (Bagnall), a little known predatory thrips from South India. Indian J. agric. Sci. Delhi **23** : 27–39, 3 pls. [Thysanopt.]

Seshadri, A. R. *see* Priesner & Seshadri.

Setty *see* Ranga Setty.

3242.—Sevastopulo, D. G. The handling of "papered" insects. Ent. Rec., Bishop's Stortford, Herts **65** : 197–199, 1 fig.

3243.—Severin, H. C. Catches of Euplexoptera and Elateridae in light traps in South Dakota. Ent. News, Lancaster, Pa. **64** : 7–9. [Dermapt., Col.]

3244.—Shafiq, S. A. Cytological studies of the neurones of *Locusta migratoria*. Part I. Cytoplasmic inclusions of the motor neurones of the adult. Quart. J. micr. Sci., London **94** : 319–328, 1 pl. 1 fig. [Orth.]

3245.—[Shakhbazov, V. G.] Systematic position and distribution of the Ussuri silkworm. [In Russian.] Zool. Zhurn., Moscow **32** : 472–477, 3 figs. [Lep.]

Shambaugh, G. F. *see* Fisk & Shambaugh.

Shanmugasundaram, E. R. B. *see* Sundaram, Radhakrishnamurty, Shanmugasundaram & Sarma.

3246.—[Shapiro, D. S.] Fauna of soil fleas in the region where the Kakhovka power station is under construction. [In Russian.] Zool. Zhurn., Moscow **32** : 1162–1174. [Col.]

Shapiro, J. E. *see* Tulloch & Shapiro.

3247.—[Shaposhnikov, G. Kh.] Dendrophilous Aphids of the steppe and desert zones of the Ural region. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952 : 92–110, 3 figs. [Hem.]

3248.—Sharga, U. S. Bionomics of *Monanthia globulifera* Walk. (Hemiptera—Heteroptera : Tingidae). J. Bombay nat. Hist. Soc. **51** : 885–889, 5 figs.

3249.—Sharma, G. P. & **Malik,** A. P. The louse sperm. Res. Bull. E. Panjab Univ., Hoshiarpur Zool. no. 32 : 73–91, 3 pls. [Anopl.]

3250.—Sharman, G. B. The cytology of Tasmanian short-horned grasshoppers (Orthoptera : Acridoidea). Pap. roy. Soc. Tasmania, Hobart **86** 1952 : 107–122, 1 pl. 57 figs.

3251.—[Sharov, A. G.] The influence of environment on the larvae of the elm Notodontid. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **88** : 929–932. [Lep.]

3252.—[Sharov, A. G.] The first finding of a permian larva of a Megaloptera from Kargala. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **89** : 731–732, 2 figs. [Fossil.]

3253.—[Sharov, A. G.] The elm Notodontid—a pest of forest plantations in the steppe zone. [In Russian.] Zool. Zhurn., Moscow **32** : 594–607, 8 figs. [Lep.]

3254.—Shaw, F. R. A review of some of the more important contributions to our knowledge of the systematic relationships of the Sciaridae (Diptera). Proc. Hawaii. ent. Soc., Honolulu **15** : 25–32, 1 fig.

3255.—Shaw, F. R. Some new Diptera with remarks on the affinities of the genus *Pnyxia* Joh. Psyche, Cambridge, Mass. **60** : 62–68, 5 figs.

Shchegolev, V. N. *see* Beĭ-Bienko, Bogdanov-Kat'kov, Fal'kenshteĭn, Chigarev & Shchegolev.

3256.—Sheals, J. G. Effects of DDT and BHC on soil arthropods. Nature, London **171** : 978. [Collemb.]

3257.—Sheljuzhko, L. Neue paläarktische Catocalinen. Dtsch. ent. Z., Iris, Dresden **57** (1943) 1944 : 55–66, 2 pls. [Lep.]

Sheljuzhko, L. *see* Holik & Sheljuzhko.

3258.—Shemanchuk, J. A., Spinks, J. W. T. & Fredeen, F. J. H. A method of tagging prairie mosquitoes (Diptera: Culicidae) with radiophosphorus. Canad. Ent., Ottawa **85**: 269–272, 1 fig.

3259.—Sheppard, P. M. Polymorphism and population studies. Symp. Soc. exp. Biol., Cambridge no. 7: 274–289, 2 figs. [Lep.]

Sheppard, P. M. *see* Clarke & Sheppard.

3260.—Shewell, G. E. Notes on the types of some American Agromyzidae (Diptera). Canad. Ent., Ottawa **85**: 462–470, 7 figs.

Shibata, K. *see* Koidsumi & Shibata.

3261.—Shibata, S. Criteria of the growth stages of Anopheline larvae. A morphological study on *Anopheles hyrcanus* var. *sinensis*. Bull. Yamaguchi med. Sch. **1** no. 1: 37–48, 3 pls. 3 figs. [Dipt.]

3262.—Shibuya, M. & Maebara, H. Seasonal fluctuation of populations of soybean pod gall midge and its Hymenopterous parasites. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **18**: 49–54, 4 figs. [Dipt.]

3263.—Shikata, M. Differences of chemical properties of the ether extractives from exuviae of two races of silkworm, *Bombyx mori* L. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **18**: 33–38. [Lep.]

3264.—[Shilova-Krassova, S. A.] On the activity of insectivorous birds in places of mass increase of injurious forest insects. [In Russian.] Zool. Zhurn., Moscow **32**: 955–963.

3265.—Shinji, O. On the status of *Cecidomyia impatientis* (Osten Sacken). Annot. zool. jap., Tokyo **17** 1938: 428–430, 2 figs. [Dipt.]

3266.—Shinji, O. A list of Japanese Aphidini with the description of four new species. Zool. Mag., Tokyo **51** 1939: 432–439, 5 figs. [Hem.]

3267.—Shiraki, T. An interesting fruit-fly. Zool. Mag., Tokyo **51** 1939: 410–411, 1 pl. [Dipt.]

3268.—Shiraki, T. & Edashige, T. The insect fauna of Mt. Ishizuchi and Omogo Valley, Iyo, Japan. The Syrphidae (Diptera). Trans. Shikoku ent. Soc. **3**: 84–124, 1 pl., 10 figs.

3269.—Shirôzu, T. A new species of *Favonius* from Japan. [In Japanese with English description.] Kontyû, Tokyo **19** 1951: 60–66. [Lep.] [Not seen.]

3270.—Shirôzu, T. New or little known butterflies from the North-Eastern Asia, with some synonymic notes. I, II. Sieboldia, Fukuoka **1** 1952 pt. 1: 11–37, 11 pls. 1 fig., 1953 pt. 2: 149–159, 1 pl. 1 fig. [Lep.]

Shogaki, Y. *see* Tokunaga & Shogaki.

3271.—Short, J. R. T. A grouping by larval characters of some species of the genus *Apanteles* (Hymenoptera: Braconidae). Bull. ent. Res., London **44**: 327–332, 4 figs.

3272.—Short, J. R. T. On the musculature of the legs of *Corixa punctata* (Illiger) (Hemiptera). Proc. R. ent. Soc. London (A) **28**: 31–35, 5 figs.

3273.—[Shtakel'berg, A. A.] New Syrphidae (Diptera) of the Palaearctic fauna. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1952: 350–400, 34 figs.

3274.—[Shtakel'berg, A. A.] New species of Dolichopodidae (Diptera) from Tadzhikistan. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1952: 401–404, 3 figs.

3275.—[Shtakel'berg, A. A.] New species of Cordyluridae (Diptera) of N. USSR. [In Russian]. Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1952: 405–407, 4 figs.

3276.—[Shteĭnberg, D. M.] Basic characters of the distribution of dendrophilous insects in the flood area of the river Ural, in connection with the possibility of their populating the strips of field-protecting forests. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952: 111–125.

3277.—Shulov, A. Observations on the behaviour and the egg development of *Tmethis pulchripennis asiaticus* Uv. Bull. Res. Counc. Israel, Jerusalem **2** 1952 : 249–254, 1 fig. [Orth.]

3278.—Shute, P. G. Contribution to the *Culex pipiens* complex. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 289–292. [Dipt.]

3279.—[Shvanvich, B. N.] On the pattern of Lepidoptera, chiefly Heteroœra. [In Russian.] Zool. Zhurn., Moscow **32** : 874–885, 29 figs. [Lep.]

3280.—Siang Hsu, W. The origin of proteid yolk in *Drosophila melanogaster*. Quart. J. micr. Sci., London **94** : 23–28, 1 fig. [Dipt.]

3281.—Sibold, N. V. Granulosis of the red-banded leaf roller. Virginia J. Sci., Richmond (N.S.) **1** 1950 : 226. [Lep.]

3282.—Sicart, M. Description et étude de *Aedes pulchritarsis* (Rondani 1872) récolté en Tunisie. Bull. Soc. Sci. nat. Tunisie, Tunis **5** 1952 : 95–101, 1 pl. [Dipt.]

3283.—Sicart, M. Sur la présence de *Aedes zammittii* et *Aedes echinus* en Tunisie. Bull. Soc. Sci. nat. Tunisie, Tunis **5** 1952 : 109–110. [Dipt.]

3284.—Sicart, M. Note sur la différenciation de *C. hortensis* (Fic. 1889) et *C. deserticola* (Kirkp. 1924) au stade IV. Bull. Soc. Sci. nat. Tunisie, Tunis **5** 1952 : 149–150, 4 figs. [Dipt.]

Sidney, J. *see* Fox & Sidney.

3285.—Sieburth, J. F. & **McLaren,** B. A. Growth studies with the cockroach, *Periplaneta americana* (Linn.), fed vitamin-deficient diets substituted with corresponding anti-vitamins. Ann. ent. Soc. Amer., Columbus **46** : 43–48. [Orth.]

3286.—Sieder, L. *Talaeporia tubulosa bavaralta* ssp. n., eine neue Unterart aus den Berchtesgadner Alpen (Lepidoptera, Psychidae). NachrBl. bayer. Ent., Munich **2** : 52–55.

3287.—Sieder, L. Vorarbeit zu einer Monographie über die Gattung *Solenobia* Z. (Lepidopt. Psychidae–Talaeporiinae). Z. wien. ent. Ges., Vienna **38** : 113–128.

3288.—Sigot, A. Contribution à l'étude de la sensibilité héréditaire au gaz carbonique chez la Drosophile. Influence de divers facteurs sur la transmission de la sensibilité par les mâles. Bull. biol., Paris **87** : 335–413, 5 pls. [Dipt.]

3289.—Silveira Guedes, A. da, **Freitas,** J. R. de & **Xavier,** S. H. Contribuição ao conhecimento da distribuição geográfica dos anofelinos e algumas observações sôbre a biologia do *Anopheles darlingi* Root, 1926, no Estado de Minas Gerais, Brasil. Rev. brasil. Malariol., Rio de Janeiro **5** : 157–165. [Dipt.]

Silveira Guido *see* Parker, Berry & Silveira Guido.

Silvestre de Sacy, R. *see* Biliotti, Grison & Silvestre de Sacy.

3290.—Silvestri, F. Los insectos Japygidae hasta ahora conocidos de Chile. Rev. chil. Hist. nat., Victoria, Valparaiso **51-53** (1947–1949) 1951 : 67–82, 11 figs. [Thysanura.]

3291.—Simmonds, F. J. Observations on the biology and mass-breeding of *Spalangia drosophilae* Ashm. (Hymenoptera, Spalangiidae), a parasite of the frit-fly, *Oscinella frit* (L.). Bull. ent. Res., London **44** : 773–778.

3292.—Simon, E. W. Mechanisms of dinitrophenol toxicity. Biol. Rev., Cambridge **28** : 453–479, 4 figs.

3293.—Simons, J. N. New California Cicadas with taxonomic notes on other species (Homoptera : Cicadidae). Pan-Pacif. Ent., San Francisco **29** : 191–198, 2 figs.

3294.—Singh, B. Immature stages of Indian Lepidoptera. No. 8—Geometridae. Indian For. Rec., Dehra Dun **8** : 67–158, 10 pls.

Singh, B. *see* Roonwal, Mathur, Bhasin, Singh, Pant, Chandra, Katiyar & Mathur.

3295.—Singh, R. P. Speed of flight of desert locust. Curr. Sci., Bangalore **22** : 380. [Orth.]

3296.—Sinha, R. N. The spermatheca in the flour beetle (*Tribolium castaneum* Herbst). J. New York ent. Soc. **61**: 131–134, 1 fig. [Col.]

Sinha, R. N. *see* Mukerji & Sinha.

3297.—Sippell, W. L. & **Brown,** A. W. A. Studies of the responses of the female *Aëdes* mosquito. Part V. The role of visual factors. Bull. ent. Res., London **43**: 567–574, 1 pl. [Dipt.]

3298.—[Sirotina, M. I.] The latent form of yellows in the oak silkworm. [In Russian.] Dokl. vsesoyuzn. Akad. sel'skokhoz. Nauk Im. Lenina, Moscow **18** pt. 7: 32–36, 7 figs. [Lep.]

3299.—[Sisoyevit', P.] Beitrag zum Studium der Rolle der Tachinen als Regulator der Populationsdichte des Schwammspinners im Jahre 1950. [In Serbian with German summary.] Trav. Acad. serbe Sci., Belgrade **31** Inst. Ecol. Biogéogr. no. 4: 63–92, 8 figs. [Dipt., Lep.]

3300.—Skaife, S. H. Subsocial bees of the genus *Allodape* Lep. & Serv. J. ent. Soc. S. Afr., Pretoria **16**: 3–16, 5 figs. [Hym.]

3301.—[Skoptsov, A. G.] Intra specific relations of gregarious insects. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow (N.S.) **93**: 205–208.

3302.—Skuhravý, V. Das Geschlechtsverhältnis in Eiraupen von *Lymantria dispar* L. und *Lymantria monacha* L. [In Russian with German summary.] Acta Soc. zool. bohemoslov., Prague **16** 1952: 151–162, 2 figs. [Lep.]

3303.—Slabý, O. Ist der Apollofalter (*Parnassius apollo* L.) ein Glazialrelikt und hatte er seine Diluvialrefugien in den slovakischen Karpatengebirgen? [In Czech with German summary.] Acta Mus. Siles., Opava (A) **2** 1952: 37–46. [Lep.]

3304.—Slater, J. A. Three new species of *Opistholeptus* Bergroth from West Africa (Heteroptera: Lygaeidae). Beitr. Ent., Berlin **3**: 385–388.

3305.—Sleeper, E. L. New genera and species of Curculionidae with a new species of Anthribidae (Coleoptera). Ohio J. Sci., Columbus **53**: 113–120, 11 figs.

Slen, S. B. *see* Nelson & Slen.

3306.—Slifer, E. H. The pattern of specialized heat-sensitive areas on the surface of the body of Acrididae (Orthoptera). Parts I, II. Trans. Amer. ent. Soc., Philadelphia **79**: 37–68, 17 pls. 5 figs., 69–97, 17 pls. 6 figs.

3307.—Slípka, J. Trachealsystem der *Tipula*-Larven. [In Czech with German summary.] Acta Soc. zool. bohemoslov., Prague **16** 1952: 179–194, 4 pls. [Dipt.]

3308.—Slípka, J. Das Johnston'sche Organ bei den Tipuliden. [In Russian with German summary.] Chekh. Biol., Prague **1** 1952: 361–366, 2 figs. [Dipt.]

3309.—Smart, J. On the wing-venation of *Physemacris variolosa* (Linn.) (Insecta: Pneumoridae). Proc. zool. Soc. London **123**: 199–202, 1 pl. 2 figs. [Orth.]

3310.—Smart, J. A note on the wing-venation of *Dissosteira carolina* (Linn.) (Insecta: Acridiidae). Proc. zool. Soc. London **123**: 203–205, 7 figs.

3311.—Smart, J. The wing-venation of the migratory locust (*Locusta migratoria* Linn.) (Insecta: Acridiidae). Proc. zool. Soc. London **123**: 207–217, 3 pls. 2 figs. [Orth.]

3312.—Smart, J. & **Taylor,** G. Ed. Bibliography of key works for the identification of the British fauna and flora. 2nd edn. Publ. Syst. Ass., London no. 1 xi & 126 pp.

Smerdel, A. *see* Sarà & Smerdel.

3313.—Smetana, A. Eine neue Untergattung und Art der Gattung *Silpha* L. aus der Hohen Tatra. Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 385: 65–68, 4 figs. [Col.]

3314.—Smirnoff, W. *Chrysopa vulgaris* Schneider prédateur important de *Parlatoria blanchardi* Targ. dans les palmeraies de l'Afrique du Nord (Planip. Chrysopidae). Bull. Soc. ent. Fr., Paris **58**: 146–152, 5 figs. [Neuropt., Hem.]

3315.—Smit, F. G. A. M. Results of the Archbold Expeditions. No. 70 Siphonaptera from Netherlands New Guinea. Part 1. Amer. Mus. Novit., New York no. 1638: 1–53, 75 figs.

3316.—Smit, F. G. A. M. Descriptions of new and little-known Siphonaptera. Bull. Brit. Mus. (Nat. Hist.), London Ent. **3**: 187–219, 62 figs.

3317.—Smit, F. G. A. M. Some new records of fleas from Ceylon, with the description of a new species of *Nosopsyllus*. Ceylon J. Sci., Colombo (B) **25**: 149–153, 3 pls. [Siphonapt.]

3318.—Smit, F. G. A. M. Monstrosities in Siphonaptera IV. Ent. Ber., Amsterdam **14**: 393–400, 12 figs.

3319.—Smit, F. G. A. M. Notes on the flea *Nosopsyllus londiniensis* (Rothschild) (Siphon., Ceratophyllidae) in Great Britain. Ent. mon. Mag., London **89**: 255–257.

3320.—Smit, F. G. A. M. *Ctenophthalmus* (*Euctenophthalmus*) *congener congener* Roths., 1907: a flea new to Great Britain. Entomologist, London **86**: 19–22, 5 figs. [Siphonapt.]

3321.—Smit, F. G. A. M. The author's name and date of the rat-flea *Nosopsyllus fasciatus*. J. Soc. Bibl. nat. Hist., London **3**: 34–35. [Siphonapt.]

3322.—Smit, F. G. A. M. Transport of Mallophaga by fleas. Parasitology, London **43**: 205–206, 1 fig.

3323.—Smit, F. G. A. M. The presence in Scotland of *Tarsopsylla octodecimdentata* (Kol.), a flea hitherto unrecorded from the British Isles. Scot. Nat., Edinburgh **65**: 5–10, 7 figs.

Smital, E. *see* Mainx, Koske & Smital.

Smith, I. C. *see* Hall & Smith.

Smith, J. N. *see* Myers & Smith.

3324.—Smith, K. D. & Popov, G. B. On birds attacking desert locust swarms in Eritrea. Entomologist, London **86**: 3–7. [Orth.]

Smith, K. G. V. *see* Hammond & Smith.

3325.—Smith, K. M., Wyckoff, R. W. G. & Xeros, N. Polyhedral virus diseases affecting the larvae of the privet hawk moth (*Sphinx ligustri*). Parasitology, London **42**: 287–289, 3 pls. [Lep.]

3326.—Smith, K. M. & Xeros, N. Studies on the cross-transmission of polyhedral viruses: experiments with a new virus from *Pyrameis cardui*, the painted lady butterfly. Parasitology, London **43**: 178–184, 6 pls. [Lep.]

3327.—Smith, M. E. Immature stages of the marine fly, *Hypocharassus pruinosus* Wh., with a review of the biology of immature Dolichopodids. Amer. Midl. Nat., Notre Dame **48** 1952: 421–432, 9 figs. [Dipt.]

Smith, M. N. *see* Richards, Clausen & Smith.

3328.—Smith, M. R. *Pogonomyrmex salinus* Olsen, a synonym of *Pogonomyrmex occidentalis* (Cress.) (Hymenoptera: Formicidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 131–132.

3329.—Smith, M. R. A new species of *Probolomyrmex* and the first description of a *Probolomyrmex* male (Hymenoptera, Formicidae). J. New York ent. Soc. **61**: 127–129, 2 figs.

3330.—Smith, M. R. A new *Metapone* from the Micronesian Islands (Hymenoptera, Formicidae). J. New York ent. Soc. **61**: 135–137.

3331.—Smith, M. R. A new *Pheidole* (subg. *Ceratopheidole*) from Utah (Hymenoptera: Formicidae). J. New York ent. Soc. **61**: 143–146, 1 fig.

3332.—Smith, M. R. A new *Romblonella* from Palau, and the first description of a *Romblonella* male (Hymenoptera, Formicidae). J. New York ent. Soc. **61**: 163–167.

3333.—Smith, M. R. *Dolichoderus granulatus* Pergande, a synonym (Hymenoptera, Formicidae). Proc. ent. Soc. Wash. **55**: 211.

3334.—Smith, M. R. A revision of the genus *Romblonella* W. M. Wheeler (Hymenoptera: Formicidae). Proc. Hawaii. ent. Soc., Honolulu **15**: 81–84.

3335.—Smith, O. J. Species, distribution, and host records of the Braconid genera *Microctonus* and *Perilitus* (Hymenoptera: Braconidae). Ohio J. Sci., Columbus **53**: 173–178.

Smith, O. J. *see* Langston & Smith.

3336.—Smith, R. C. & **Taylor,** R. S. The biology and control of the hackberry Psyllids in Kansas. J. Kansas ent. Soc., Manhattan **26**: 103–115, 1 pl. [Hem.]

3337.—Smith, S. G. Reproductive isolation and the integrity of two sympatric species of *Choristoneura* (Lepidoptera: Tortricidae). Canad. Ent., Ottawa **85**: 141–151, 1 fig.

3338.—Smith, S. G. A pseudo-multiple sex-chromosome mechanism in an Indian Gryllid. Chromosoma, Berlin **5**: 555–573, 33 figs. [Orth.]

3339.—Smith, S. G. New aberrations of *Arctia caja* L. Ent. Rec., Bishop's Stortford, Herts **65**: 2–4. 2 pls. [Lep.]

3340.—Smith, S. G. Chromosome numbers of Coleoptera. Heredity, London **7**: 31–48, 2 figs.

3341.—Snelling, R. R. Notes on the hibernation and nesting of the wasp *Mischocyttarus flavitarsis* (de Saussure) (Hymenoptera, Vespidae). J. Kans. ent. Soc., Manhattan **26**: 143–145.

3342.—Snodgrass, R. E. A textbook of Arthropod anatomy. New York, Comstock Publ. Ass. & London, Constable & Co. 1952 x + 363 pp. 88 figs. [Ins. pp. 271–339.]

3343.—Snodgrass, R. E. The metamorphosis of a fly's head. Smithson. misc. Coll., Washington **122** no. 3: 1–25, 7 figs. [Dipt.]

3344.—Snyder, F. M. Notes and descriptions of some Ethiopian Muscidae (Diptera). Amer. Mus. Novit., New York no. 1608: 1–21, 7 figs.

3345.—Sobels, F. H. & **Nijenhuis,** L. E. An investigation into the metamorphosis of the mutant lethal-translucida of *Drosophila melanogaster*. Z. indukt. Abstamm.- u. VererbLehre, Berlin **85**: 579–592, 6 figs. [Dipt.]

Sobels ,F. H. *see* Bezem & Sobels.

3346.—Soeseno, R. S. *Sphaerodema rusticum* Fabr. Trop. Natuur, Bogor **33**: 82–90, 4 figs. [Hem.]

Soika *see* Giordani Soika.

Sokatch, J. T. *see* Horsfall, Miles & Sokatch.

3347.—Solari, F. Curculionidi nuovi o poco conosciuti della fauna paleartica—XVI. Di alcuni *Acalles*, *Apion*, *Baris*, *Rhytirhinus* (Col. Curc.). Boll. Soc. ent. ital., Genoa **82** 1952: 41–56.

3348.—Solari, F. Quattro nuovi *Smicronyx* europei e note critiche su alcune altre specie del genere (Col. Curc.). Mem. Soc. ent. ital., Genoa **31** 1952: 22–37.

Soldatova, A. N. *see* Dement'ev, Kartashev & Soldatova.

3349.—Soliman, A. A. Histochemical determination of the distribution of alkaline phosphatase in larval tissues of *Drosophila melanogaster*. Proc. Egypt. Acad. Sci., Cairo **8**: 83–87, 1 fig. [Dipt.]

Soliman, A. A. *see* Eisa & Soliman.

3350.—Solomon, M. E. The population dynamics of storage pests. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 235–248, 4 figs.

Someren, Mrs. E. C. C. van *see* Lumsden & Someren.

3351.—Sommerman, K. M. Pictorial keys to the mosquitoes of medical importance. I. Korea. Mosquito News, Albany **13**: 18–20, 1 pl. [Dipt.]

3352.—Sommerman, K. M. Indentification of Alaskan black fly larvae (Diptera, Simuliidae). Proc. ent. Soc. Wash. **55**: 258–273, 35 figs.

3353.—Sommerman, K. M. & **Foote,** R. H. Pictorial keys to the mosquitoes of medical importance. II, III. Mosquito News, Albany, N.Y. **13**: 20–22, 2 pls., 162–164, 2 pls. [Dipt.]

3354.—Son, G. van. A revision of the subspecies and forms of *Charaxes cithaeron* Felder and *Charaxes xiphares* (Cramer). Ann. Transv. Mus., Pretoria **22**: 219–230, 4 pls. 1 fig. [Lep.]

3355.—Sonan, J. Descriptions of three new species of Icheumonidae from Formosa (Hymenoptera). [In Japanese and English.] Zool. Mag., Tokyo **51** 1939 : 428–431.

Sørensen, S. J. *see* Pedersen & Sørensen.

3356.—Sorenson, J. S. & **Fluke,** C. L. The male genitalia of the Stratiomyidae with special reference to Wisconsin species. Ann. ent. Soc. Amer., Columbus **46** : 337–342, 2 pls. [Dipt.]

3357.—Sorenson, J. & **Fluke,** C. L. Stratiomyidae of Wisconsin (Diptera). Trans. Wisconsin Acad. Sci. Arts Lett., Madison **42** : 149–172, 1 pl.

3358.—Sotavalta, O. Recordings of high wing-stroke and thoracic vibration frequency in some midges. Biol. Bull., Lancaster, Pa. **104** : 439–444, 3 figs. [Dipt.]

Soto *see* Manso Soto.

Sousa *see* Esteves de Sousa.

3359.—Southwood, T. R. E. Interspecific copulation between *Nabis ferus* (L.) and *N. rugosus* (L.) (Hem., Nabidae). Ent. mon. Mag., London **89** : 294.

3360.—Southwood, T. R. E. The morphology and taxonomy of the genus *Orthotylus* Fieber (Hem., Miridae), with special reference to the British species. Trans. R. ent. Soc. London **104** : 415–449, 152 figs.

Souza, S. H. de *see* Ricciardi, Nascimento & Souza.

3361.—Souza Lopes, H. de. Two new species of the genus *Tricholioproctia* Baranov, 1938 from Australia (Dipt. Sarcophagidae). Rev. brasil. Biol., Rio de Janeiro **13** : 21–24, 2 figs.

3362.—Souza Lopes, H. de. Seis novos Sarcophagidae neotrópicos (Diptera). Rev. brasil. Biol., Rio de Janeiro **13** : 41–51, 30 figs.

3363.—Souza Lopes, H. de. Sôbre *Rafaelia* Townsend e *Sarcodexia* Townsend (Diptera, Sarcophagidae). Rev. brasil. Biol., Rio de Janeiro **13** : 225–233, 19 figs.

3364.—Souza Lopes, H. de & **Vogelsang,** E. G. *Notochaeta bufonivora* n. sp., parásita de *Bufo granulosus* Spix em Venezuela (Diptera Sarcophagidae). An. Acad. bras. Ciênc., Rio de Janeiro **25** : 139–143, 1 pl.

3365.—Soyka, W. Neue Arten der Gattung *Anaphoidea* Gir. (Mymaridae, Chalcidoidea, Hymenoptera). Ent. NachrBl., Vienna **5** : 37–38, 53–54.

3366.—Soyka, W. Die Gattung *Stichothrix* Förster (Hym., Chalcid., Mymaridae). Natuurh. Maandbl., Maastricht **42** : 57–60.

Spassky, B. *see* Dobzhansky & Spassky.

Speirs, N. *see* Ribbands & Speirs.

3367.—Spencer, G. J. Upon neutralizing the odour of *Nomius pygmaeus* (Dej.), the stink beetle (Coleoptera : Carabidae). Proc. ent. Soc. Br. Columbia, Vernon **49** : 24.

3368.—Spencer, K. A. Notes on the British Agromyzidae (Dipt.)—I. Ent. mon. Mag., London **89** : 296–297.

3369.—Sperry, J. L. A *Racheospila* species from Tulare Co. California apparently undescribed (Lepidoptera, Geometridae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 26–27.

Spicer, P. B. *see* MacGillivray & Spicer.

Spielman, A. *see* Wallis & Spielman.

3370.—Spiess, E. B., **Terrile,** B. A. & **Blumenheim,** U. Physiological properties of gene arrangement carriers in *Drosophila persimilis*. II. Wing-beat frequency and wing dimensions. Evolution, Lancaster, Pa. **6** (1952) : 421–427. [Dipt.]

3371.—Spilman, T. J. An odd case of gynandromorphism in the external genitalia of *Boros discicollis* (Salpingidae). Coleopt. Bull., Washington, D.C. **7** : 41–44, 5 figs.

Spinks, J. W. T. *see* Fredeen, Spinks & others ; Shemanchuk, Spinks & Fredeen.

3372.—Springhetti, A. Le vescicole seminali in *Mastotermes*. R.C. Ist. lombardo, Milan Cl. Sci. mat. nat. **85** 1952 : 3–6. [Isopt.]

Sreenivasaya, M. *see* Venkatachala Murthy & Sreenivasaya.

Srivastava, H. M. L. *see* Pradhan & Srivastava.

3373.—Srivastava, M. D. L. & **Das,** C. C. Heteropycnosis in the autosome segments of *Ceriagrion coromandelianum* (Odonata). Nature, London **172** : 765–766.

3374.—Srivastava, P. D. Agricultural products as insecticides. Sci. & Cult., Calcutta **19** : 139–140.

3375.—Stabenau, R. Ueber die Entwicklung der Versonschen Drüsen bei den Schmetterlingsraupen. Nachr. Akad. Wiss. Göttingen math.-phys. Kl. (IIb) **1952** 1952 no. 2 : 7–14, 21 figs. [Lep.]

Stabler, R. M. *see* Fox & Stabler.

3376.—Stäger, R. Die Biene als Blütenstaubsammlerin "wider Willen". Mitt. schweiz. ent. Ges., Berne **25** 1952 : 355–356. [Hym.]

3377.—Stahler, N. & **Terzian,** L. A. Studies in the laboratory mating habits of *Anopheles quadrimaculatus* Say. J. exp. Zool., Philadelphia **124** : 317–328, 1 fig. [Dipt.]

3378.—Stalker, H. D. Taxonomy and hybridization in the *cardini* group of *Drosophila*. Ann. ent. Soc. Amer., Columbus **46** : 343–358, 3 figs. [Dipt.]

3379.—[Stal'makova, G. A.] Contribution to the study of the physicochemical regime and quantitative development of the bottom fauna of certain artificial reservoirs of the province of Chkalov. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **11** 1952 : 265–278, 1 fig.

3380.—Staniland, L. N. The principles of line illustration. London, Burke Publishing Co. 1952 xii & 212 pp., 161 figs.

3381.—Stannard, jr., L. J. A new Australian Phlaeothripidae (Thysanoptera : Tubulifera). Proc. biol. Soc. Washington **65** 1952 : 127–130, 2 figs.

3382.—Stannard, jr., L. J. The genus *Halmathrips* Hood (Thysanoptera, Thripidae). Proc. ent. Soc. Wash. **55** : 1–6, 7 figs.

3383.—Stannard, L. J. Distribution of *Trachythrips watsoni* in Illinois (Thysanoptera : Phlaeothripidae). Trans. Illinois Acad. Sci., Springfield **44** 1952 : 216–221, 3 figs.

3384.—Stark, H. E. An unusual occurrence of three spermathecae in a specimen of *Hystrichopsylla dippiei* (Siphonaptera). Pan-Pacif. Ent., San Francisco **29** : 135–137, 1 fig.

3385.—[Stark, V. N.] Fn. USSR. Coleoptera 31. Bark beetles. [In Russian.] Zool. Inst. Akad. Nauk SSSR, Moscow (N.S.) **49** 1952 : 1–462, 304 figs.

3386.—Starke, H. Zweiter Nachtrag zu den Schmetterlingen der sächsischen Oberlausitz. Dtsch. ent. Z., Iris Dresden **55** (1941) 1942 : 127–133. [Lep.]

3387.—Statz, G. Fossile Mordellidae und Lamellicornia (Coleoptera) aus den Oberoligozän von Rott. Palaeontographica, Stuttgart (A) **102** 1952 : 1–17, 2 pls. [Fossil.]

Stebbins, F. M. *see* Nabours & Stebbins.

3388.—Steel, W. O. A new genus and species of Phloeocharinae (Col., Staphylinidae) from New Zealand. Ent. mon. Mag., London **89** : 162–164, 7 figs.

3389.—Steel, W. O. Notes on the Omaliinae (Col., Staphylinidae). Ent. mon. Mag., London **89** : 171–175, 11 figs., 280, 4 figs.

3390.—Steel, W. O. On the nomenclature of two British species of Staphylinidae (Col.). Ent. mon. Mag., London **89** : 198.

3391.—Steel, W. O. A species of *Carpelimus* (Col., Staphylinidae) new to Britain. Ent. mon. Mag., London **89** : 214, 1 fig.

3392.—Stefani, R. Nuovi Embiotteri della Sardegna. Boll. Soc. ent. ital., Genoa **83** : 84–98, 4 figs.

3393.—Stefani, R. Un particolare modo di accoppiamento negli insetti Embiotteri. R.C. Accad. Lincei, Rome (8) **14** : 544–549, 7 figs.

3394.—Stefani, R. La fisiologia dell'accoppiamento in *Haploembia solieri* Ramb. (Embioptera Oligotomidae). R.C. Accad. Lincei, Rome (8) **15** : 211–216.

3395.—Stefani, R. Il cannibalismo sessuale constatato negli insetti Embiotteri. R.C. Semin. Sci. Cagliari **23** fasc. 1–2 : 1–9.

3396.—Steffan, J.-R. Les espèces françaises de Haltichellinae (Hyménoptères Chalcididae). Cah. Nat., Paris (N.F.) **8** : 7–12, 33–36.

3397.—Stefferud, A. Ed. Insects. Yearb. Agric. U.S. Dep. Agric., Washington, D.C. **1952** 1952 xviii & 780 pp. 72 col. pls. & many figs.

3398.—Stehlík, J. L. The fauna of Heteroptera of the mountain High Jeseník. [In Czech with English summary.] Acta Mus. Morav., Brno **37** 1952 : 132–248, 7 pls. 4 figs.

3399.—Stehlík, J. L. & **Hoberlandt,** L. Interesting finds of Heteroptera in Moravia and Slovakia. [In Czech with English summary.] Acta Mus. Morav., Brno **38** : 160–167. [Hem.]

3400.—Steiner, G. Zur Duftorientierung fliegender Insekten. Naturwissenschaften, Berlin **40** : 514–515. [Col.]

Steiner, G. *see* Eberhardt & Steiner.

3401.—Steinhaus, E. A. Taxonomy of insect viruses. Ann. New York Acad. Sci. **56** : 517–537.

3402.—Steinhaus, E. A. & **Bell,** C. R. The effect of certain microorganisms and antibiotics on stored-grain insects. J. econ. Ent., Menasha **46** : 582–598. [Col.]

Steinhaus, E. A. *see* Wasser & Steinhaus.

3403.—Steinhausen, W. & **Weise,** E. Bemerkenswerte Käfervorkommen zwischen Harz und Heide. Ent. Bl., Krefeld **49** : 133–140. [Col.]

Stekhoven *see* Schuurmans Stekhoven.

3404.—Stelfox, A. W. A new *Rogas* (Hym., Braconidae) from Ireland. Ent. mon. Mag., London **89** : 146–147.

3405.—Stempffer, H. Contribution à l'étude de quelques Lycènes d'Europe occidentale. Lambillionea, Brussels **53** : 12–18. [Lep.]

3406.—Stempffer, H. La réserve naturelle intégrale du Mt Nimba, fascicule 1. IX. Lépidoptères Lycaenidae. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 145–149, 2 figs.

3407.—Stempffer, H. & **Bennett,** N. H. A revision of the genus *Teriomima* Kirby (Lepidoptera : Lycaenidae). Bull. Brit. Mus. (Nat. Hist.), London Ent. **3** : 79–104, 7 pls.

Stempffer, H. *see* Condamin.

Stenburg, R. L. *see* Klock, Pimentel & Stenburg.

3408.—Stephens, G. C., **Fingerman,** M. & **Brown,** jr., F. A. The orientation of *Drosophila* to plane polarized light. Ann. ent. Soc. Amer., Columbus **46** : 75–83, 4 figs. [Dipt.]

3409.—Sterzl, O. Zur Lepidopterenfauna des Waldviertels. Neue oder bemerkenswerte Funde in der Umgebung von Arbesbach (Niederösterreich). Z. wien. ent. Ges., Vienna **38** : 3–6.

3410.—[Stevanovit', D.] Contribution to study of Acrididae and Tettigoniidae on Mount Golija. [In Serbian with English summary.] Trav. Acad. serbe Sci., Belgrade **31** Inst. Ecol. Biogeogr. no. 4 : 51–61.

3411.—Stevenson, R. & **James,** H. St. C. Temperature as a factor in size and activity of wild populations of *Drosophila*. J. Tenn. Acad. Sci., Nashville **28** : 43–48, 2 figs. [Dipt.]

3412.—Steyskal, G. C. A suggested classification of the lower Brachycerous Diptera. Ann. ent. Soc. Amer., Columbus **46** : 237–242, 1 fig.

3413.—Steyskal, G. C. Genus *Pseudorichardia* Hendel (Diptera, Otitidae). Occ. Pap. Bishop Mus., Honolulu **21** 1952 : 63–66, 1 fig.

3414.—Steyskal, G. C. Further notes on Diptera of tree trunks, with descriptions of two new species of *Drapetis* (Diptera ; Empididae) and an abstract of a Finnish paper on Diptera by Tuomikoski. Pap. Michigan Acad. Sci., Ann Arbor **38** pt. 2 Zool. : 255–260, 6 figs.

3415.—Stichel, W. Heteroptera aus der Umgebung von Hammelburg. Hammelburg, The Author 1946 [4] pp. [Hem.]

Stirrett, G. M. *see* Fox & Stirrett.

Stock, A. *see* O'Farrell & Stock.

3416.—Stone, A. New Tabanid flies of the tribe Merycomyiini. J. Wash. Acad. Sci. **43** : 255–258, 9 figs. [Dipt.]

3417.—Stone, A. The halteres of *Anopheles walkeri* Theobald. Mosquito News, Albany, N.Y. **13** : 209–210.

3418.—Stone, A. & **Rosen,** L. A new species of *Culex* from the Marquesas Islands and the larva of *Culex atriceps* Edwards (Diptera : Culicidae). J. Wash. Acad. Sci., Baltimore **43** : 354–358, 3 figs.

3419.—Storace, L. Su alcune Lycaenidae abissine del Museo di Genova (Lepidoptera). Doriana, Genoa **1** no. 35 : 1–4.

3420.—Storace, L. Ropaloceri dell'Africa orientale. I–II. (Lepidoptera, Diurna). Su alcune Pieridae e Nymphalidae raccolte dalla missione del Lago Tana diretta dal Prof. Giotto Dainelli. Doriana, Genoa **1** no. 38 : 1–8.

3421.—Storace, L. Recherches sur le groupe africain de *Papilio nireus* L. Lambillionea, Brussels **52** 1952 : 75–76. [Lep.]

3422.—Storace, L. Su alcune Lycaenidae italiane specialmente della zona di Arquata Scrivia (Piemonte) (Lepidoptera). Mem. Soc. ent. ital., Genoa **31** : 132–154.

Storrs, E. E. *see* Burchfield, Redder, Storrs & Hilchey.

Stovichek, L. N. *see* Yakhontov & Stovichek.

3423.—Strandtmann, R. W. Notes on the nesting habits of some digger wasps. J. Kansas ent. Soc., Manhattan **26** : 45–52, 2 figs. [Hym.]

3424.—Straneo, S. L. Nuovi Pterostichini VII (Coleop. Carabidae). Doriana, Genoa **1** no. 36 : 1–12, 5 figs.

3425.—Straneo, S. L. Expedition to the Gughé Highlands (Southern Ethiopia), 1948–49 : Coleoptera, Carabidae, Pterostichinae. J. Linn. Soc. London **42** : 295–297, 1 fig.

3426.—Straneo, S. L. La réserve naturelle intégrale du Mt Nimba, fascicule 1. VIII. Coléoptères Carabidae Pterostichinae. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 127–143, 26 figs.

3427.—Strenger, A. Zur Kopfmorphologie der Ephemeridenlarven. Erster Teil. *Ecdyonurus* und *Rhithrogena*. Oest. zool. Z., Vienna **4** : 191–228, 10 figs.

3428.—Strickland, E. H. An annotated list of the Hemiptera (S.L.) of Alberta. Canad. Ent., Ottawa **85** : 193–214.

3429.—Strickland, E. H. Polythene-stoppered vials for storing insects in alcohol. Canad. Ent., Ottawa **85** : 470–471, 1 fig.

3430.—Strickland, E. H. The ptilinal armature of flies (Diptera, Schizophora). Canad. J. Zool., Ottawa **31** : 263–299, 1 pl. 44 figs.

3431.—Stride, G. O. The respiratory bubble of the aquatic beetle, *Potamodytes tuberosus*, Hinton. Nature, London **171** : 885–886, 1 fig. [Col.]

3432.—Stride, G. O. On the nutrition of *Carpophilus hemipterus* L. (Coleoptera : Nitidulidae). Trans. R. ent. Soc. London **104** : 171–194, 11 figs.

3433.—Strohecker, H. F. Descriptions of new species and notes on North American Orthoptera. Amer. Midl. Nat., Notre Dame, Ind. **48** 1952 : 683–688, 4 figs.

3434.—Strohecker, H. F. The Gryllacrididae and Gryllidae of the Bahama Islands, British West Indies (Orthoptera). Amer. Mus. Novit., New York no. 1618 : 1–11, 2 figs.

3435.—Strohecker, H. F. Coleoptera. Fam. Endomychidae. Genera Insect., Brussels **210E** 140 pp. 5 pls. 66 figs.

3436.—Strohecker, H. F. Some new Endomychidae (Coleoptera) from Belgian Congo. Rev. Zool. Bot. afr., Tervuren **47** : 81–91, 15 figs.

3437.—Strohecker, H. F. Additional descriptions of Congo Endomychidae. Rev. Zool. Bot. afr., Tervuren **47** : 92–95, 4 figs. [Col.]

3438.—Strojny, W. Some observations on the egg-laying process of *Ephialtes tuberculatus* Fourcr. (Hym. Ichn.)—parasite of the larva of *Cryptorrhynchus lapathi* L. (Col. Curc.). [In Polish with English summary.] Bull. ent. Pologne, Wroctaw **21** (1951) 1952 pp. 140–143, 1 pl.

3439.—Strojny, W. *Panorpa communis* L. (Panorp., Panorpidae)—predator on *Melolontha melolontha* L. (Col. Scarab.). [In Polish with English summary.] Bull. ent. Pologne, Wrocław **21** (1951) 1952 : 145–147, 2 figs.

3440.—Stroud, C. P. An application of factor analysis to the systematics of *Kalotermes*. Syst. Zool., Washington, D.C. **2** : 76–92, 9 figs. [Isopt.]

3441.—Stroyan, H. L. G. Notes on some species of *Dysaphis* Börner, 1931 (Hemiptera : Aphididae). Proc. R. ent. Soc. London (B) **22** : 95–102, 5 figs.

3442.—Stroyan, H. L. G. A new account of *Aphis compositellae* Theobald (Hem., Aphididae). Proc. R. ent. Soc. London (B) **22** : 109–118, 1 pl.

3443.—Stumm-Zollinger, E. Vergleichende Untersuchung über die Inversionshäufigkeit bei *Drosophila subobscura* in Populationen der Schweiz und Südwesteuropas. Z. indukt. Abstamm.- u. VererbLehre, Berlin **85** : 382–407, 10 figs. [Dipt.]

Stumm-Zollinger, E. *see* Hadorn & Stumm-Zollinger.

3444.—Stumper, R. Ueber Schutz- und Trutzsekrete der Ameisen (1). Naturwissenschaften, Berlin **40** : 33–34, 1 fig. [Hym.]

Stumpf, H. *see* Autrum & Stumpf.

3445.—Sturm, R. Notes on some Siphonaptera of Fulton County, New York. J. New York ent. Soc. **61** : 139–140.

3446.—Stutinsky, F. Mise en évidence d'une substance antidiurétique dans le cerveau et le complexe rétrocérébral d'une blatte (*Blabera fusca* Brunn.). Bull. Soc. zool. France, Paris **78** : 202–204, 1 fig. [Orth.]

3447.—Suárez, F. J. Dos nuevas *Smicromyrme* norteafricanas (Hym. Mutillidae). Boll. Soc. ent. ital., Genoa **83** : 126–129, 2 figs.

3448.—Subba Rao, B. R. Articulation of propectus with head in *Lestodryinus pyrillae* Kieff. (Dryinidae Hymenoptera). Curr. Sci., Bangalore **22** : 87, 2 figs.

Subba Rao, B. R. *see* Narayanan, Angalet, Subba Rao & D'Souza.

3449.—Sudia, W. D. A taxonomic note on the larvae of *Aedes schizopinax* Dyar. Ent. News, Lancaster, Pa. **64** : 146–148, 4 figs. [Dipt.]

3450.—Sudia, W. D. & **Gogel,** R. H. The occurrence of *Orthopodomyia alba* Baker in Georgia (Diptera : Culicidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 129–131.

3451.—Sugiyama, S. & **Kawase,** E. On the Hymenopterous parasites of English grain aphid, *Macrosiphum granarium* Kirby. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** 1952 : 5–21, 2 pls. 3 figs.

3452.—[Sukhova, M. N.] Synanthropic flies (flies inhabiting human dwelling places). [In Russian.] Pom. med. Rabot. no. 3. Moscow, Akad. med. Nauk SSSR 1952 : 1–60, 17 figs.

3453.—Sullivan, C. R. Use of radioactive cobalt in tracing the movements of the white-pine weevil, *Pissodes strobi* Peck. (Coleoptera : Curculionidae). Canad. Ent., Ottawa **85** : 273–276.

3454.—Sullivan, C. R. & **Wellington,** W. G. The light reactions of larvae of the tent caterpillars, *Malacosoma disstria* Hbn., *M. americanum* (Fab.), and *M. pluviale* (Dyar) (Lepidoptera : Lasiocampidae). Canad. Ent., Ottawa **85** : 297–310.

Sullivan, R. L. *see* Grosch & Sullivan.

3455.—Sundaram, T. K., **Radhakrishnamurty,** R., **Shanmugasundaram,** E. R. B., & **Sarma,** P. S. Tryptophane metabolism in rice moth

larva (*Corcyra cephalonica* St.). Proc. Soc. exp. Biol. Med., New York **84** : 544–546, 1 fig. [Lep.]

3456.—Sundaram, T. K. & **Sarma,** P. S. Tryptophane metabolism in rice moth larva (*Corcyra cephalonica* St.). Nature, London **172** : 627–628. [Lep.]

3457.—Sundby, R. Studies on the leaf-mining moth, *Phyllocnistis labyrinthella* Bjerk. I. Nytt Mag. Zool., Oslo **1** : 98–128, 15 figs. [Lep.]

3458.—Suomalainen, E. The kinetochore and the bivalent structure in the Lepidoptera. Hereditas, Lund **39** : 88–96, 11 figs.

3459.—Suomalainen, E. Die Polyploidie bei den parthenogenetischen Rüsselkäfern. Verh. dtsch. zool. Ges., Leipzig **1952** : 280–289, 6 figs. [Col.]

3460.—Suomalainen, P. On the significance of ultrasonics in the orientation of animals. [In Finnish.] Luonnon Tutk., Helsinki **55** 1951 : 117–120, 3 figs.

3461.—Sussman, A. S. Studies of an insect mycosis. V. Color changes accompanying parasitism in *Platysamia cecropia*. Ann. ent. Soc. Amer., Columbus **45** (1952) : 638–644, 3 figs. [Lep.]

Suto, D. *see* Otuka, Santa & Suto.

3462.—Svensson, I. Eine neue Art der Gattung *Tinea* Zeller (Lepidoptera). Opusc. ent., Lund **18** : 225–227, 6 figs.

3463.—Swanepoel, D. A. Butterflies of South Africa. Where, when and how they fly. Cape Town, Maskew Miller 320 pp. 25 pls. (17 col.), 6 figs. [Lep.]

Swellengrebel, N. H. *see* Bonne-Wepster & Swellengrebel.

3464.—Swift, H. & **Kleinfeld,** R. DNA in grasshopper spermatogenesis, oögenesis and cleavage. Physiol. Zoöl., Chicago **26** : 301–311, 2 pls. 2 figs. [Orth.]

3465.—Swirski, E. *Myzocallis bodenheimeri* H.R.L. (Aphidoidea, Homop.) in Israel. Bull. Res. Council Israel, Jerusalem **2** : 431–433, 8 figs.

Swirski, E. *see* Bodenheimer, Halperin & Swirski.

3466.—Synave, H. Description d'une nouvelle espèce africaine appartenant au genre *Oliarus* Stål (Hemiptera-Homoptera). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 33 : 1–4, 6 figs.

3467.—Synave, H. Cixiidae (Hemiptera, Homoptera). Explor. Parc nat. Albert, Miss. de Witte (1933–35), Brussels fasc. 79 : 9–34, 8 figs.

3468.—Synave, H. Cixiidae (Hemiptera Homoptera). Explor. Parc nat. Upemba, Miss. de Witte (1946–1949), Brussels fasc. 23 : 1–49, 44 figs.

Synave, H. *see* Lallemand & Synave.

3469.—Székessy, V., Ed. Bátorliget élővilága. [Fauna and flora of Bátorliget.] [In Magyar with German summary and descriptions.] Budapest, State Academy, 486 pp., illus.

3470.—Szent-Iványi, J. v. Bemerkungen über einige paläarktische Geometriden und Mikrolepidopteren nebst Beschreibung neuer Formen. Dtsch. ent. Z., Iris, Dresden **55** (1941) 1942 : 109–124, 1 pl.

3471.—Szmidt, A. A little-known moth *Tmetocera lariciana* Hein. (*Tmetocera ocellana* F. v. *lariciana* Hein.). [In Polish with English summary.] Bull. ent. Pologne, Wrocław **21** (1951) 1952 pp. 128–139, 4 figs. [Lep.]

3472.—Szulczewski, J. W. The zoocecidia of Gorzow-Ziemia Lubuska. [In Polish with English summary.] Prace Kom. biol., Poznan **14** no. 1 : 1–38.

3473.—Tachikawa, T. Some notes on the male of *Comperiella unifasciata* Ishii (Hymenoptera : Encyrtidae). Trans. Shikoku ent. Soc., Matsuyama **3** : 181–183, 1 pl.

3474.—Tahmisian, T. N. & **Gasvoda,** J. The effect of β irradiation on the respiration and morphology of *Melanoplus differentialis* embryos. Trans. Illinois Acad. Sci., Springfield **44** 1952 : 235–252, 9 figs. [Orth.]

3475.—Tahmisian, T. N. & **Vogel, jr.,** H. H. Relative biological effectiveness of fast neutrons, gamma rays, X-rays on grasshopper nymph ovarioles (*Melanoplus differentialis*). Proc. Soc. exp. Biol. Med., New York **84**: 538–543, 2 pls. [Orth.]

3476.—Takagi, S. & **Tanaka,** J. A note on the third emergence of the rice stem borer, *Chilo simplex* Butler, in the Niigata Prefecture. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951: 157–162. [Lep.]

3477.—Takahashi, F. On the difference of the action between two parasitic wasps in the fluctuations of the host and parasite. (Preliminary.) [In Japanese with English summary.] Res. Popul. Ecol., Kyoto **2**: 47–54, 3 figs. [Hym.]

3478.—Takahashi, F. On the action of population density in the population fluctuation of the flour moth *Ephestia cautella*. [In Japanese with English summary.] Res. Popul. Ecol., Kyoto **2**: 55–64, 5 figs. [Lep.]

3479.—Takahashi, R. Some species of nondiaspine scale insects from the Malay peninsula. Insecta matsum., Sapporo **18** 1952: 9–17, 5 figs. [Hem.]

3480.—Takahashi, R. Some Malayan species of Aleyrodidae (Homoptera). Mushi, Fukuoka **24** 1952: 21–27, 4 figs.

Takahasi, H. *see* Kôno & Takahasi.

3481.—Takamatsu, Y. Biological notes on the squash fly, *Zeugodacus depressus* Shiraki. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** 1952: 14–18, 4 figs. [Dipt.]

3482.—Takata, N. Some physiological aspects of the polyhedral disease of silkworm, *Bombyx mori* L. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **18**: 78–82, 3 figs. [Lep.]

3483.—Takeda, H. Studies on the periodical secretion of the alluring substance of the eri-silkworm moth (*Philosamia cynthia ricini* Boisd.). IV. Effect of removing compound eyes of the female moth on the secretion activity of the alluring substance. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **18**: 145–148. [Lep.]

3484.—Takenouchi, Y. Preliminary notes on the chromosomes of some weevils. [In Japanese with English summary.] Zool. Mag., Tokyo **62**: 441–444, 8 figs. [Col.]

3485.—Takeya, C. Notes on the Tingidae of Shikoku, Japan (Hemiptera). Trans. Shikoku ent. Soc., Matsuyama **3**: 167–176, 1 pl.

3486.—Taku, K. & **Aé,** A. S. Genetic studies of the Pierid butterfly *Colias hyale poliographus*. Genetics, Lancaster, Pa. **38**: 65–72. [Lep.]

3487.—Talbot, M. Ants of an old-field community on the Edwin S. George Reserve, Livingston County, Michigan. Contr. Lab. Vertebr. Biol. Univ. Michigan, Ann Arbor no. 63: 1–13. [Hym.]

3488.—Talice, R. V. Tropismos de *Musca domestica* y de otras "moscas domésticas". Arch. Soc. Biol. Montevideo **19** (1952): 15–17. [Dipt.]

3489.—Tamanini, L. Caratteri e distribuzione della *Velia ventralis* Puton 1881 (Hem. Heter. Veliidae). Boll. Soc. ent. ital., Genoa **82** 1952: 39–41, 6 figs.

3490.—Tamanini, L. Gli *Orotrechus* delle prealpi Veneto-Trentine (Coleoptera, Trechidae). Studi trentini, Trento **30**: 34–64, 51 figs.

3491.—Tamino, G. Ricerche sul volo degli insetti. III. Nuove osservazioni sulle caratteristiche aerodinamiche del corpo dei ditteri. Arch. zool. (ital.), Napoli **37** 1952: 171–192, 7 figs.

3492.—Tamino, G. Nuove osservazioni sulle caratteristiche aerodinamiche dei Ditteri. Boll. Zool., Turin **19** 1952: 241–244, 1 fig.

3493.—Tams, W. H. T. A pest of coconut palms in Portuguese East Africa. Bull. Brit. Mus. (Nat. Hist.), London Ent. **3**: 69–73, 14 figs. [Lep.]

3494.—Tams, W. H. T. Two new representatives of the genus *Hypotrabala* (Lepidoptera: Lasiocampidae) from the Belgian Congo. Bull. Brit. Mus. (Nat. Hist.), London Ent. **3**: 74–75, 1 pl. 8 figs. [Lep.]

3495.—Tams, W. H. T. The genus *Alompra* Moore (Lepidoptera, Lasiocampidae). Tijdschr. PlZiekt., Wageningen **59** : 165–168, 16 figs.

3496.—Tams, W. H. T. & **Bowden,** J. A revision of the African species of *Sesamia* Guenée and related genera (Agrotidae-Lepidoptera). Bull. ent. Res., London **43** : 645–678, 74 figs.

Tanaka, E. *see* Ogaki, Kaji & Tanaka.

Tanaka, J. *see* Takagi & Tanaka.

3497.—Tanaka, Y. Genetics of the silkworm, *Bombyx mori*. Advanc. Genet., New York **5** : 239–317, 27 figs. [Lep.]

3498.—Tarshis, I. B. Oöcyst-like bodies on the midgut of *Stilbometopa impressa* (Bigot) (Diptera : Hippoboscidae). Science, New York **118** : 199–202, 8 figs.

3499.—Tate, P. Prepupal moult in the blowfly (*Calliphora erythrocephala*). Nature, London **171** : 341–342, 3 figs. [Dipt.]

Tauber, O. E. *see* Farrier & Tauber.

Taylor, G. *see* Smart & Taylor.

Taylor, R. S. *see* Smith & Taylor.

Taylor, jr., W. W. *see* DeCoursey, Webster, Taylor, Leopold & Kathan.

3500.—[Telenga, N. A.] Contribution to the systematics of Braconids of the genus *Chelonus* Jur. and *Chelonella* Szepl. (Hymenoptera, Braconidae). [In Russian.] Zool. Zhurn., Moscow **32** : 1175–1177, 1 fig.

3501.—Telfer, W. H. & **Williams,** C. M. Immunological studies of insect metamorphosis. I. Qualitative and quantitative description of a blood antigens of the Cecropia silkworm. J. gen. Physiol., Baltimore **36** : 389–413, 7 figs. [Lep.]

Tempère, G. *see* Balazuc & Tempère.

3502.—Temple, V. Some notes on the courtship of butterflies in Britain. Ent. Gaz., London **4** : 141–161, 11 figs. [Lep.]

3503.—Tenney, S. M. Observations on the physiology of the Lepidopteran heart with special reference to reversal of the beat. Physiol. comp., The Hague **3** : 286–306, 14 figs.

3504.—[Ter-Minasyan, M. E.] Survey of long-nosed beetles of the genus *Trachodes* Germ. of the fauna of the USSR. [In Russian.] Trud. zool. Inst. Akad. Nauk SSSR, Leningrad **12** 1952 : 317–320. [Col.]

Terrile, B. A. *see* Spiess, Terrile & Blumenheim.

Terzian, L. A. *see* Stahler & Terzian.

3505.—Tesař, Z. A contribution to the identification of coprophagic Scarabaeidae in Czechoslovakia. [In Czech with English summary.] Acta Mus. Siles., Opava (A) **1** 1951 : 13–17, 8 figs. [Col.]

3506.—Tesař, Z. Les Onthophages de Tchécoslovaquie. [In Czech with French summary.] Acta Mus. Siles., Opava (A) **2** (1952) : 1–21, 13 figs. [Col.]

3507.—Teunissen, H. G. M. Anciens et nouveaux Tryphonides (Ichneumonides, Hyménoptères). Tijdschr. Ent., Amsterdam **96** : 13–49, 10 figs.

3508.—Tevis, jr., L. An outbreak of *Nymphalis californica* near Lake Almanor, California. Pan-Pacif. Ent., San Francisco **29** : 201–202. [Lep.]

3509.—Thalenhorst, W. Der Kokon von *Campoplex angustatus* Thoms. (Hym., Ichneumonidae). Anz. Schädlingsk., Berlin **24** 1951 pp. 36–37, 1 fig.

3510.—Thalenhorst, W. Vergleichende Betrachtungen über den Massenwechsel der Kiefernbuschhornblattwespe. Z. angew. Ent., Berlin **35** : 168–182, 1 fig. [Hym.]

3511.—Theobald, N. Les climats de l'Europe occidentale au cours des temps tertiaires d'après l'étude des insectes fossiles. Geol. Rdsch., Stuttgart **40** 1952 : 89–92.

3512.—Theodor, O. On a collection of *Phlebotomus* from the Yemen. J. Wash. Acad. Sci. **43** : 119–121. [Dipt.]

3513.—Theodor, O. On the structure of the genitalia in the Nycteribiidae (Diptera, Pupipara). Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 27–33, 6 figs.

3514.—Théodoridès, J. Enigmatical corpuscules in the body cavity of a Scarabaeid beetle. Ent. mon. Mag., London **89** : 167–168, 2 figs. [Col.]

Théodoridès, J. *see* Grenier & Théodoridès ; Jolivet & Théodoridès.

3515.—Theowald, B. Diptera van Zuid-Limburg. II. Natuurh. Maandbl., Maastricht **42** : 66–68.

3516.—Thérond, J. La réserve naturelle intégrale du Mt Nimba, fascicule 1. V. Coléoptères Histeridae. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 67–68.

3517.—Thévenard, P. Emploi de la radio-cinématographie pour la recherche biologique, et application de cette méthode à l'étude de la métamorphose chez la mouche. C.R. Acad. Sci., Paris **237** : 1791–1793. [Dipt.]

3518.—Thiem, H. Die Wirtspflanzen der San José-Schildlaus und ihre Bedeutung. Z. angew. Ent., Berlin **35** : 91–122, 5 figs. [Hem.]

3519.—Thienemann, A. Das Leben im Süsswasser. Eine Einführung in die biologischen Probleme der Limnologie. [In Croat]. Zagreb, Hrv. prirod. Društ. 96 pp. 35 figs.

3520.—Thienemann, A. *Trichocladius fucicola* Edw. eine marine Chironomide. Kieler Meeresforsch. **9** 1952 : 66–67. [Dipt.]

Thomann, H. *see* de Bros & Thomann.

Thomas, B. W. *see* Fox & Thomas.

Thomas, G. M. *see* Sacktor, Thomas, Moser & Bloch.

3521.—Thomas, J. G. A comparison of the flight muscles of Acrididae with different wing development. Proc. R. ent. Soc. London (A) **28** : 47–56, 4 figs. [Orth.]

3522.—Thomas, M. L'instinct anatomique des guêpes prédatrices. Riviera sci., Nice **38-39** (1951–1952) [? 1953] : 7–13. [Hym.]

3523.—Thompson, G. B. Contributions toward a study of the ectoparasites of British birds and mammals. No. 1. Ann. Mag. nat. Hist., London (12) **6** : 401–425, 15 figs.

3524.—Thompson, G. B. The parasites of British birds and mammals.—XXV, XXVI. Ent. mon. Mag., London **89** : 208–209, 1 fig., 224–226, 1 fig. [Dipt., Siphonapt.]

Thompson, P. M. *see* Paterson & Thompson.

3525.—Thompson, W. R. A catalogue of the parasites and predators of insect pests. Section 2. Host parasite catalogue. Part 2. Hosts of the Hymenoptera (Agaonidae to Braconidae). Ottawa, Commonw. Bur. biol. Contr. [1&] ii & 190 pp. multigraph.

3526.—Thompson, W. R. The Tachinid parasites of *Archips cerasivorana* Fitch (1), (2). Canad. Ent., Ottawa **85** : 19–30, 3 pls., 393–404, 2 pls. 4 figs. [Dipt., Lep.]

3527.—Thompson, W. R. Note on *Dichaetoneura leucoptera* Johns. (Diptera, Tachinidae). Canad. Ent., Ottawa **85** : 391–392, 1 fig.

3528.—Thorsteinson, A. J. The role of host selection in the ecology of phytophagous insects. Canad. Ent., Ottawa **85** : 276–282.

3529.—Thorsteinson, A. J. The chemotactic responses that determine host specificity in an oligophagous insect (*Plutella maculipennis* (Curt.) Lepidoptera). Canad. J. Res., Ottawa **31** : 52–72.

3530.—Tibbetts, T. Ectoparasites from mammals at camp Lejeune, North Carolina. J. econ. Ent., Menasha **46** : 530.

3531.—Tilden, J. W. Observations on the biology of *Psoa maculata* Leconte (Psoidae). Coleopt. Bull., Washington, D.C. **7** : 9–12.

3532.—Tilden, J. W. Biological notes on *Trirhabda flavolimbata* (Chrysomelidae). Coleopt. Bull., Washington, D.C. **7** : 20–23.

3533.—Tilden, J. W. The digging and provisioning behavior of *Ammophila saeva* Smith (Hymenoptera : Sphecidae). Pan-Pacif. Ent., San Francisco **29** : 211–218.

3534.—Timberlake, P. H. Bees of the genus *Perdita* in the collection of the University of Kansas (Hymenoptera Apoidea). Univ. Kansas Sci. Bull., Lawrence **35** : 961–985.

3535.—Timmermann, G. Die Federläuse des Säbelschnäblers. Bombus, Hamburg no. 78–79 : 329–333, 3 figs. [Malloph.]

3536.—Timmermann, G. Die *Quadraceps*-Arten (Mallophaga) der Regenpfeifer (Unterfamilie Charadriinae). Zool. Anz., Leipzig **150** : 178–190, 1 fig.

3537.—Tindale, N. B. New Rhopalocera and a list of species from the Grampian Mountains, western Victoria. Rec. S. Aust. Mus., Adelaide **11** : 43–68, 4 pls., 4 figs.

3538.—Tindale, N. B. On a new form of *Heteronympha penelope* Waterhouse (Lepidoptera Rhopalocera, family Satyridae). Trans. R. Soc. S. Aust., Melbourne **75** 1952 : 25–29, 1 pl. 1 fig.

3539.—Tinker, M. E. The seasonal behavior and ecology of the boxelder bug *Leptocoris trivittatus* in Minnesota. Ecology, Brooklyn **33** 1952 : 407–414, 4 figs. [Hem.]

3540.—Tippmann, F. F. Studien über neotropische Longicornier—I (Coleoptera : Cerambycidae). Dusenia, Curitiba **4** : 181–228, 5 pls.

3541.—Tippmann, F. F. Lamiinen mit Interferenz-Farbenspiel (Coleoptera : Cerambycidae, subfam. Lamiinae). Ent. Bl., Krefeld **49** : 148–153, 3 figs.

3542.—Tippmann, F. F. Eine neue Batocerini-Gattung und -Art aus Mittel-Celebes (Coleoptera, Cerambycidae, Lamiinae). Tijdschr. Ent., Amsterdam **96** : 101–104, 1 pl.

3543.—Tischner, H. Ueber den Gehörsinn von Stechmücken. Acustica, Zürich **3** : 335–343, 12 figs. [Dipt.]

3544.—Tjeder, B. Bland harkrank, mygg och annat på Kullaberg. Fauna o. Flora, Uppsala **48** : 207–218, 7 figs.

3545.—Tjeder, B. Catalogus insectorum sueciae. Additamenta ad partes I–X. I. Neuroptera et Mecoptera. Opusc. ent., Lund **18** : 71.

3546.—Tjeder, B. The identity of *Tipula oleracea* L. Opusc. ent., Lund **18** : 111–115, 1 fig. [Dipt.]

3547.—Tjeder, B. Faunistical notes on Swedish Neuroptera. Opusc. ent., Lund **18** : 227–228.

3548.—Tjeder, B. *Elephantomyia edwardsi* Lack. and *Pedicia littoralis* Mg. in Sweden (Dipt. Tipulidae). Opusc. ent., Lund **18** : 231–232, 1 fig.

Tjoa Tjien Mo *see* Franssen, Nijveldt & Tjoa Tjien Mo.

3549.—Tjønneland, A. A contribution to the Norwegian dragonflies. Univ. Bergen Årb. naturv. R. **1952** no. 15 : 1–52, 2 figs. 26 maps. [Odon.]

3550.—Tod, K. The distribution of the Northern Dart, *Agrotis hyperborea* (Zetterstedt), on the mainland of Scotland. Scot. Nat., Edinburgh **65** : 11–18, 1 pl. [Lep.]

3551.—Tokunaga, M. A moth-fly from Japanese pine mushroom (Psychodidae, Diptera). Sci. Reps Saikyo Univ., Kyoto Agric. no. 4 : 1–3, 6 figs.

3552.—Tokunaga, M. & **Shogaki,** Y. A new species of biting midge from Japan (Diptera, Ceratopogonidae). Proc. ent. Soc. Wash. **55** : 286–288, 1 fig.

3553.—Toledo Piza, S. de. Interpretação do typo sexual de *Dysdercus mendesi* Bloete (Hemiptera Pyrrhocoridae). Genet. iber., Madrid **3** 1951 : 107–111, 4 figs.

3554.—Tollet, R. Notes sur les Diptères Mycetophilidae de Belgique. II.—Keroplatinae. Bull. Ann. Soc. ent. Belg., Brussels **89** : 179–180.

3555.—Tollet, R. Mycetophilidae et autres arthropodes hivernant dans les tiges creuses des *Heracleum*. Bull. Ann. Soc. ent. Belg., Brussels **89** : 210–213. [Dipt.]

Tomita, G. *see* Yoshimeki, Katô & Tomita.

3556.—Tongyai, C. Some synonymic corrections of the Buprestidae. Nat. Hist. Bull. Thailand Res. Soc., Bangkok **13** 1942 : 49. [Col.]

3557.—Tonks, N. V. Annotated list of insects and mites collected on brambles in the lower Fraser Valley, British Columbia, 1951. Proc. ent. Soc. Br. Columbia **49** : 27–29.

3558.—Tonnoir, A. L. The Australian Psychodidae (Diptera), Part II. Aust. J. Zool., Melbourne **1** : 419–448, 14 figs.

3559.—Torii, T. Mathematical treatment of the hourly cumulative number of species and individuals of phototropic moths. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939 : 339–347. [Lep.]

3560.—Torres, B. A. Respecto de un nuevo género y especie de Membrácido para la Argentina (resumen). Comun. cient. Mus. La Plata no. 4 1952 : 3–4. [Hem.]

3561.—Tottenham, C. E. *Philonthus quisquiliarius* Gyllenhal (Coleoptera : Staphylinidae) and its allies. Ann. Mag. nat. Hist., London (12) **6** : 143–148, 8 figs.

3562.—Tottenham, C. E. Staphylinidae from Kilimanjaro, Mt. Kenya and the Ruwenzori. Ann. Mag. nat. Hist., London (12) **6** : 481–512, 37 figs. [Col.]

3563.—Tottenham, C. E. A new species of *Philonthus* Stephens from Africa (Col. : Staphylinidae). Proc. R. ent. Soc. London (B) **22** : 139–141, 6 figs.

3564.—Toulgoët, H. de. Contribution à l'étude des *Eilema* paléarctiques (3e note). Note sur *Eilema uniola* Rbr. (Lep. Lithosiidae). Bull. Soc. ent. Fr., Paris **58** : 55–57.

Toulgo¨t, H. de *see* Crosson du Cormier, Guérin & Toulgoët.

3565.—Toumanoff, C. Contribution à l'étude des Tabanidés de l'Indochine (Troisième note : Description d'une espèce nouvelle). Bull. Soc. Path. exot., Paris **46** : 200–205, 4 figs. [Dipt.]

3566.—Toumanoff, C. & **Vago,** C. L'effet de l'alcalinité du milieu de culture sur la virulence de *Bacillus cereus* var. *alesti* Toum. & Vago, pour les vers à soie. C.R. Acad. Sci., Paris **235** 1952 : 1715–1719. [Lep.]

3567.—Townsend, A. L. H. Four new Kenya moths. J.E. Afr. nat. Hist. Soc., Nairobi **21** 1952 : 68–71, 1 pl. [Lep.]

3568.—Townsend, jr., J. I. Genetics of marginal populations of *Drosophila willistoni*. Evolution, Lancaster, Pa. **6** (1952) : 428–442, 1 fig. [Dipt.]

Trapido, H. *see* Galindo, Carpenter & Trapido.

3569.—Traub, R. *Wenzella obscura*, a new genus and new species of flea from Guatemala (Siphonaptera). J. Wash. Acad. Sci. **43** : 77–85, 11 figs.

3570.—Traub, R. *Hollandipsylla neali*, a new genus and new species of flea from North Borneo, with comments on eyeless fleas (Siphonaptera). J. Wash. Acad. Sci., Baltimore **43** : 346–353, 11 figs.

3571.—Travassos Santos Dias, J. A. Uma nova espécie do género *Tabanus* Linnaeus, 1761 para a fauna de Moçambique. Moçambique, Lourenço Marques no. 75 : 157–163, 1 fig. [Dipt.]

3572.—Travis, V. B. Laboratory studies on the hatching of marsh-mosquito eggs. Mosquito News, Albany, N.Y. **13** : 190–198.

3573.—Trojanowa, R. Syrphidae of the surroundings of Warsaw (Diptera). Fragm. faun. Mus. zool. polon., Warsaw **6** : 449–463.

3574.—Trübsbach, P. Gohlis bei Riesa an der Elbe, ein xerothermer Landstrich im Gau Sachsen und seine kennzeichnende Falterfauna. Dtsch. ent. Z., Iris, Dresden **54** (1940) 1941 : 1–31, 1 fig. [Lep.]

3575.—Truxal, F. S. A revision of the genus *Buenoa* (Hemiptera Notonectidae). Univ. Kansas Sci. Bull., Lawrence **35** : 1351–1523, 17 pls.

Tsujita, M. *see* Sasakawa, M.

3576.—Tsukamoto, M. & **Ogaki,** M. Inheritance of resistance to DDT in *Drosophila melanogaster*. [In Japanese with English summary.] Botyu-Kagaku, Kyoto **18** : 39–44, 1 fig. [Dipt.]

Tsukamoto, M. *see* Ogaki & Tsukamoto.

3577.—Tsuneki, K. Two new species of Chrysididae from Japan and Korea. Insecta matsum., Sapporo **18** 1952 : 31–33, 2 figs. [Hym.]

3578.—Tsuneki, K. Ethological studies on the Japanese species of *Pemphredon* (Hymenoptera, Sphecidae), with notes on their parasites, *Ellampus* spp. (Hym., Chrysididae). J. Fac. Sci. Hokkaido Univ., Sapporo (Zool.) **11** 1952 : 57–75, 5 figs.

3579.—Tsuneki, K. The genus *Rhopalum* Kirby (1829) of Japan, Korea, Saghalien and the Kuriles, with a suggested reclassification of the subgenera and descriptions of four new species (Hym. Sphecidae, Crabroninae). J. Fac. Sci. Hokkaido Univ., Sapporo (Zool.) **11** 1952 : 110–125, 79 figs.

3580.—Tsuneki, K. Chrysididae of Manchuria (Hymenoptera). Mushi, Fukuoka **25** : 53–61, 2 figs.

3581.—Tucker, R. W. E. Insects of Barbados. J. Barbados Mus. hist. Soc., Bridgetown **20** : 155–181.

3582.—[Tuleshkov, K. N.] Mallophaga—ectoparasites sur les oiseaux et les mammifères domestiques. [In Bulgarian with French summary.] Bull. Inst. zool. Acad. bulg. Sci., Sophia **2** : 75–161, 27 figs.

3583.—Tulloch, G. S. & **Shapiro,** J. E. Brochosomes. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 57–63, 12 figs. [Hem., Dipt.]

3584.—[Turov, I. S.] On the rôle of bot-flies in the biology of the elk. [In Russian.] Zool. Zhurn., Moscow **32** : 886–892. [Dipt.]

3585.—Tuttle, D. M. Notes on *Listronotus debilis* Blatchley (Coleoptera, Curculionidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **58** : 123–124.

3586.—Tuxen, S. L. Proposal for a glossary of terms used for description of genitalia in insects. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 34.

3587.—Tuzet, O. & **Zuber-Vogeli,** M. La spermatogenèse de *Zonocerus variegatus* L. Bull. Inst. franç. Afr. noire, Dakar **15** : 487–494, 4 figs. [Orth.]

3588.—Tweedie, M. W. F. Photographing moths on bait. Malay. nat. J., Kuala Lumpur **8** : 25–26, 1 pl.

3589.—Tykač, J. Klíč k určování motýlů. Prague, Melantrich 1949 216 pp. 71 figs. [Lep.]

Tykač, J. *see* Komárek & Tykač.

3590.—Ubisch, L. von. Die Bedeutung von Metamorphose, Generationswechsel und Polymorphismus für die Abstammungslehre. Verh. dtsch. zool. Ges., Leipzig **1952** : 430–435.

3591.—Uchida, H. On three new species and a new form of Japanese Smynthuridae (Ins. Collem.), with special reference to the dental setae. Annot. zool. jap., Tokyo **26** : 1–13, 9 figs.

3592.—Uchida, H. On two species of the genus *Anurida* (Collembola), *A. trioculata* and *A. granaria*. [In Japanese with English summary.] Kontyû, Tokyo **19** 1951 : 66–69.

3593.—Uchida, H. A new genus of Sminthuridae from Japan (Collembola). Mushi, Fukuoka **24** 1952 : 1–4, 1 fig.

3594.—Uchida, T. Einige neue oder wenig bekannte Ichneumonidenarten aus Japan. Insecta matsum., Sapporo **18** 1952 nos. 1–2 : 18–24. [Hym.]

3595.—Uchida, T. Ichneumonologische Ergebnisse der japanischen wissenschaftlichen Schansi-Provinz, China-Expedition im Jahre 1942. Mushi, Fukuoka **24** 1952 : 39–58. [Hym.]

3596.—Uchida, T. Die Insekten-Fauna aus dem Berg Ishizuchi und dem Tal Omogo. Die Ichneumoniden (Hymenoptera). Trans. Shikoku ent. Soc. **3** : 126–131.

3597.—Uchida, T. & **Ehara,** S. Effects of a Dipterous parasite upon the grasshopper, *Oxya yezoensis* Shiraki. J. Fac. Sci. Hokkaido Univ., Sapporo (Zool.) **11** : 169–174, 4 figs. [Orth.]

3598.—Uchida, T. & **Masaki,** S. The effect of low temperature after high temperature treatment upon the induction of diapause in the cabbage army worm moth (studies on diapause in the cabbage army worm moth I). [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** : 129–134, 4 figs. [Lep.]

3599.—Ueno, H. Determination of the larval instar of the common cabbage butterfly by means of the measurement of head width. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** 1952 : 59–62, 3 figs. [Lep.]

3600.—Ueno, H. Some analysis on the growth of the larvae of the common cabbage butterfly, *Pieris*

rapae crucivora. [In Japanese with English summary.] Res. Popul. Ecol., Kyoto **2** : 79–84, 3 figs. [Lep.]

3601.—Uéno, S. New cave-dwelling Trechids of Japan (Coleoptera, Harpalidae). Mushi, Fukuoka **24** 1952 : 13–16, 1 pl.

3602.—Uéno, S. On a cave-dwelling Sphodrid found in Japan (Coleoptera, Harpalidae). Mushi, Fukuoka **24** 1952 : 17–19, 1 fig.

3603.—Uhmann, E. Hispinae von Brasilien und Argentinien. Acta zool. lilloana, Tucuman **12** (1951) 1952 : 331–341, 7 figs. [Col.]

3604.—Uhmann, E. Hispinae aus dem britischen Museum. VII. Teil. 136. Beitrag zur Kenntnis der Hispinae (Coleopt., Chrysom.). Ann. Mag. nat. Hist., London (12) **6** : 871–876, 2 figs.

3605.—Uhmann, E. *Callispa semirufa* Kraatz. Beitr. Ent., Berlin **3** : 653–655, 1 fig. [Col.]

3606.—Uhmann, E. Hispinae aus dem Institut royal des Sciences naturelles de Belgique, I. Teil. 142. Beitrag zur Kenntnis der Hispinae (Coleoptera Chrysomelidae). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 15 : 1–8.

3607.—Uhmann, E. L. Nachtrag zu meiner Arbeit über die " Praeimaginalstadien einiger mittelamerikanischer Hispinae." Ent. Bl., Krefeld **49** : 169–173, 1 fig. [Col.]

3608.—Uhmann, E. Hispinae aus Java. Idea, Bogor **9** : 89–91. [Col.]

3609.—Uhmann, E. Amerikanische Hispinae IV. Mem. Soc. cubana Hist. nat., Havana **21** : 161–172, 1 pl. [Col.]

3610.—Uhmann, E. Eine Puppenexuvie von *Dactylispa pubicollis* Chap. Mitt. zool. Mus. Berlin **29** : 134–136, 4 figs. [Col.]

3611.—Ullrich, W. Beobachtung zur Frage der Schutztracht der Feuerwanze, *Pyrrhocoris apterus* L. Beitr. Ent., Berlin **3** : 406–411. [Hem.]

3612.—Ullyett, G. C. Biomathematics and insect populations problems. A critical review. Mem. ent. Soc. S. Afr., Pretoria no. 2 : 1–89, 21 figs.

3613.—Ulrich, H. Biophysikalisch-entwicklungsphysiologische Bestrahlungsversuche an *Drosophila*-Eiern. Verh. dtsch. zool. Ges., Leipzig **1951** 1952 : 87–96, 7 figs. [Dipt.]

Umeya, K. *see* Hirano & Umeya.

3614.—Umeya, Y. An observation on *Tricholyga sorbillans* Wiede. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951 : 125–128. [Dipt.]

3615.—Umeya, Y. A consideration on the wintering of insects from the viewpoint of an important physiological boundary line in the larval life of the silkworm. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939 : 451–462, 4 figs. [Lep.]

3616.—Umeya, Y. Preliminary note on the relation between the development of hereditable larval monster and the ooplasm in the silkworm. [In Japanese with English summary.] Zool. Mag., Tokyo **59** 1950 : 272–277, 2 figs.

3617.—Umeya, Y. On *Rhodinia fugax* Butler. [In Japanese with English summary.] Zool. Mag., Tokyo **59** 1950 : 278–283, 5 figs. [Lep.]

3618.—Umeya, Y. & **Osanai,** M. On the diapause type of Rhopalocera. [In Japanese with English summary.] Oyo - Dobuts. - Zasshi, Tokyo **18** : 73–77, 1 pl. [Lep.]

3619.—Urbahn, E. Ueber die Artberechtigung von *Melitaea veronicae* Dorfmeister auf Grund von Typenuntersuchungen (Lep. Rhop.). Z. wien. ent. Ges., Vienna **38** : 87–94, 5 figs.

3620.—Urbahn, E. Was versteht man unter *Melitaea dictynnoides* Hormuzaki ? (Lep.). Z. wien. ent. Ges., Vienna **38** : 149–152, 1 fig.

3621.—Ureta R., E. Una nueva especie de *Xyleutes* Hbn. (Lep. Zeuzeridae). Bol. Mus. nac. Hist. nat. Chile, Santiago **25** 1951 : 73–77, 2 figs.

3622.—Urquhart, F. A. & **Beaudry,** J. R. A recently introduced species of European grasshopper. Canad. Ent., Ottawa **85** : 78–79, 1 fig. [Orth.]

3623.—[**Ushatinskaya,** R. S.] Food reserves in the intestinal tract of the noxious little tortoise *Eurygaster integriceps* during the period of rest and their biological significance. [In Russian.] Dokl. Akad. Nauk SSSR, Moscow **93** : 737–740. [Hem.]

3624.—**Usinger,** R. L. Notes on the genus *Metrobates* in California with description of a new subspecies (Hemiptera : Gerridae). Pan-Pacif. Ent., San Francisco **29** : 178–179.

3625.—**Usinger,** R. L. & **La Rivers,** I. The insect life of Arno. Atoll Res. Bull., Washington no. 15 : 1–28.

Usinger, R. L. *see* Ferris & Usinger ; Mayr, Linsley & Usinger.

3626.—**Usman,** S. Bionomics and control of the Tamarind seed borer, *Sitophilus linearis* (Herbst). Indian J. Ent., New Delhi **15** : 147–156, 1 pl. [Col.]

3627.—**Utida,** S. Interspecific competition between two species of bean weevil. Ecology, Lancaster, Pa. **34** : 301–307, 4 figs. [Col.]

3628.—**Utida,** S. Population fluctuations caused by host-parasite interaction. 2nd report. Host-parasite interaction in the experimental population of the Azuki bean weevil, *Callosobruchus chinensis*. IX. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951 : 111–118.

3629.—**Utida,** S. The relation between the percentage of parasitization of egg-batch and the percentage of parasitization of egg. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** 1952 : 22–26, 3 figs.

3630.—**Utida,** S. Density effects observed in the interacting populations of a host and its two parasites. Experimental studies on synparasitism. 1st report. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** 1952 no. 1 : 1–7, 3 figs.

3631.—**Utida,** S. Fluctuations in the interacting populations of host and its parasite in relation to the biotic potential of host species. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **9** : 59–62, 4 figs.

3632.—**Utida,** S. Effect of host density upon the population growth of interacting two species of parasite. Experimental studies on synparasitism. Second report. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **9** : 102–107, 4 figs.

3633.—**Utida,** S. Population fluctuation in the system of host-parasite interaction. [In Japanese with English summary.] Res. Popul. Ecol., Kyoto **2** : 22–46, 11 figs.

Utida, S. *see* Fujita & Utida.

3634.—**Uvarov,** B. P. Grasshoppers (Orthoptera, Acrididae) of Angola and Northern Rhodesia, collected by Dr. Malcolm Burr in 1927–1928. Publ. cult. Cia Diamant. Angola, Lisbon no. 21 : 1–217, 295 figs.

3635.—**Uvarov,** B. P. Some effects of past climatic changes on the distribution of African Acrididae. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 157–159. [Orth.]

Uvarov, B. P. *see* Dirsh & Uvarov.

Vacher de Lapouge *see* Lapouge.

3636.—**Vago,** C. La polyèdrie de *Thaumetopoea pityocampa*. Ann. Epiphyt., Paris **4** : 319–332, 5 figs. [Lep.]

Vago, C. *see* d'Aguilar, Legay & Vago ; Drilhon & Vago ; Lépine, Vago & Croissant ; Toumanoff & Vago.

3637.—**Vaillant,** F. Quelques Dolichopodidae de la zone paléarctique (Diptera). Bull. Inst. Sci. nat. Belg., Brussels **28** 1952 no. 65 : 1–15, 19 figs.

3638.—**Vaillant,** F. Quelques Thaumaleidae de France et d'Algérie (Diptera). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 22 : 1–4, 14 figs.

3639.—**Vaillant,** F. Les *Dolichopeza* de France et d'Algérie (Diptera Tipulidae). Bull. Inst. Sci. nat. Belg., Brussels **29** no. 23 : 1–4, 12 figs.

3640.—**Vaillant,** F. Une espèce nouvelle du genre *Beraea* Stephens en Algérie (Trichoptera). Bull. Soc. Hist. nat. Afr. N., Algiers **44** : 4–8, 17 figs.

3641.—Vaillant, F. Au sujet des *Stactobia* (Trichoptères). Bull. Soc. zool. Fr., Paris **77** : 285–286.

3642.—Vaillant, F. *Kowarzia barbatula* Mik et *Dolichocephala ocellata* Costa, deux Empidides à larves hygropétriques (Diptères). Bull. Soc. zool. Fr., Paris **77** : 286–291, 21 figs.

3643.—Vaillant, F. Deux Trichoptères nouveaux du Sahara central. Bull. Soc. zool. Fr., Paris **78** : 149–157, 39 figs.

3644.—Vaillant, F. Quelques Empididae de France et d'Algérie. Encycl. ent., Paris (B) II Dipt. **11** : 57–63, 11 figs.

3645.—Vaillant, F. Les Thaumaleidae des Alpes du Dauphiné et des montagnes d'Algérie. Encycl. ent., Paris (B) II Dipt. **11** : 119–128, 21 figs.

3646.—Vaillant, F. Les *Helicopsyche* Hagen de Corse (Trichoptera). Entomologiste, Paris **9** : 76–78, 8 figs.

3647.—Vaillant, F. *Hemerodromia seguyi*, nouvel empidide d'Algérie destructeur de simulies. Hydrobiologia, The Hague **5** : 180–188, 31 figs. [Dipt.]

3648.—Valletta, A. Additions to the known Lepidoptera (Heterocera) of the Maltese Islands. Entomologist, London **86** : 8–9.

3649.—Valletta, A. Recent additions to the Microlepidoptera of the Maltese Islands. Entomologist, London **86** : 200–202.

Van Boven, J. K. A. *see* Raignier & Van Boven.

Van der Hammen *see* Hammen.

3650.—Van der Kloot, W. G. & **Williams,** C. M. Cocoon construction by the Cecropia silkworm. I, II. Behaviour, Leiden **5** : 141–156, 9 figs., 157–174, 12 figs. [Lep.]

van der Kuyp *see* Kuyp.

van der Meer Mohr *see* Meer Mohr.

Vandermeerssche, G. *see* Denucé & Vandermeerssche.

van der Vecht *see* Vecht.

van Dinther *see* Dinther.

van Doesburg *see* Doesburg.

3651.—Van Dyke, E. C. The Coleoptera of the Galapagos Islands. Occ. Pap. Calif. Acad. Sci., San Francisco no. 22 : 1–181, 7 pls.

3652.—Van Dyke, E. C. New Coleoptera from western North America (Carabidae, Throscidae, Curculionidae). Pan-Pacif. Ent., San Francisco **29** : 98–101.

3653.—Van Dyke, E. C. New Coleoptera from western North America (Carabidae, Melasidae, Buprestidae, Curculionidae). Pan-Pacif. Ent., San Francisco **29** : 102–107.

3654.—Van Dyke, E. C. A new Cossonid beetle from California, probably introduced (Coleoptera : Curculionidae). Pan-Pacif. Ent., San Francisco **29** : 107–108.

van Emden *see* Emden.

van Heerdt *see* Heerdt.

van Hell *see* Hell.

van Hille *see* Hille.

van Leeuwen *see* Docters van Leeuwen.

van Lith *see* Lith.

3655.—Van Pelt, A. Notes on the above-ground activity and a mating flight of *Pogonomyrmex badius* (Latr.). J. Tenn. Acad. Sci., Nashville **28** : 164–168. [Hym.]

van Regteren Altena *see* Regteren Altena.

3656.—Vanschuytbroeck, P. Celyphidae (Diptera, Acalyptratae). Explor. Parc. nat. Albert, Miss. de Witte (1933–35), Brussels fasc. 79 : 87–88.

3657.—Vanschuytbroeck, P. Celyphidae (Diptera Acalyptratae). Explor. Parc nat. Upemba, Miss. de Witte (1946–49), Brussels fasc. **17** : 111–116.

3658.—Vanschuytbroeck, P. Deux Diptères Dolichopodides malgaches. Nat. malgache, Tananarive **4** 1952 : 89–90.

3659.—Vanschuytbroeck, P. Quelques Dolichopodides malgaches (Diptères). Nat. malgache, Tananarive **4** 1952 : 137–140, 3 figs.

van Someren *see* Someren.

van Son *see* Son.

3660.—Vardé, V. P. Contribution à l'étude de l'ovogenèse des insectes : l'ovogenèse des Coléoptères dytiscides. Arvernia biol., Clermont-Ferrand no. 3 1930 : 1–106, 4 pls. 7 figs.

Varga, G. A. *see* Papp & Varga.

3661.—Vargas, L. Relación de las especies de *Culex* de las Américas con los sinónimos mas importantes (Insecta : Diptera). Bol. Inst. Estud. méd. biol. Méx. **9** 1952 : 167–206.

3662.—Vargas, L. *Megarhinus* de Norteamérica (Diptera : Culicidae). Rev. Inst. Salub. Enferm. trop., Mexico **13** : 27–32.

3663.—Vargas, L. *Beltranmyia* n. subgen. de *Culicoides* (Insecta : Heleidae). Rev. Inst. Salub. Enferm. trop., Mexico **13** : 33–36. [Dipt.]

3664.—Vargas, L. Sobre algunos Psychodidae de México. *Eubonetia maldonadoi* n. sp. y *Syntomolaba giesi* n. sp. (Insecta, Diptera). Rev. Inst. Salub. Enferm. trop., Mexico **13** : 127–132, 3 pls., 1 fig.

3665.—Vargas, L. *Culicoides wirthomyia* n. sp. y *Culicoides stigmalis* Wirth, 1952 (Insecta, Diptera). Rev. Inst. Salub. Enferm. trop., Mexico **13** : 227–231, 2 pls.

3666.—Vargas, L. *Tendipes* (*Limnochironomus*) *californicus* y *Tendipes* (*Limnochironomus*) *figueroai* n. sp. (Diptera, Tendipedidae). Rev. Soc. mexicana Hist. nat., Mexico **13** 1952 : 47–51, 4 figs.

3667.—Vargas, L. Dos nuevas especies mexicanas de *Corethrella* (Diptera : Culicidae). Rev. Soc. mexicana Hist. nat., Mexico **13** 1952 : 57–62, 2 figs.

3668.—Vargas, L. & **Díaz Nájera,** A. Flebótomos comunes a Mexico y a los Estados Unidos. Bol. Ofic. sanit. panamer., Washington **35** : 494–498.

3669.—Vargas, L. & **Díaz Nájera,** A. Nuevas especies de flebótomos de México (Diptera : Psychodidae). Rev. Inst. Salub. Enferm. trop., Mexico **13** : 41–52, 6 pls.

3670.—Vargas, L. & **Díaz Nájera,** A. Nota sobre el examen de tipos de Simulidos descritos por el Prof. G. Enderlein. Rev. Inst. Salub. Enferm. trop., Mexico **13** : 137–149, 3 pls. [Dipt.]

3671.—Vargas, L. & **Díaz Nájera,** A. *Trichomyia fairchildi* n. sp., y *Eubonetia* n. gen. (Diptera : Psychodidae). Rev. Inst. Salub. Enferm. trop., Mexico **13** : 153–158, 3 pls.

3672.—Vargas, L. & **Díaz Nájera,** A. *Simulium* (*Notolepria*) *gonzalezi* n. sp. (Insecta, Diptera). Rev. Inst. Salub. Enferm. trop., Mexico **13** : 235–239, 2 pls.

3673.—Vargas, L. & **Díaz Nájera,** A. Descripción de la larva de *Cnephia aguirrei* (Dalmat, 1949). Rev. Soc. mexicana Hist. nat., Mexico **13** 1952 : 53–56, 4 figs.

3674.—Vargas, L. & **Díaz Nájera,** A. Dos flebótomos nuevos de México (Diptera : Psychodidae). Rev. Soc. mexicana Hist. nat., Mexico **13** 1952 : 63–74, 20 figs.

3675.—Vargas, L. & **Martínez Palacios,** A. Nota sobre la distribución de *Haemagogus* en México (Insecta : Diptera). Rev. Inst. Salub. Enferm. trop., Mexico **13** : 37–39.

Vargas, L. *see* Briseño Iragorry, Vargas & Díaz Nájera ; Martínez Palacios & Vargas.

3676.—Varin, G. Contribution à l'étude des Satyridae de France, d'Espagne et d'Afrique du Nord. Les races d'*Arethusana arethusa* Schiffermüller (*Satyrus*, *Eumenis* ou *Nytha arethusa*). Rev. franç. Lépid., Paris **14** : 77–84.

Varin, G. *see* Le Charles & Varin.

3677.—Varley, G. C. Ecological aspects of population regulation. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 210–214, 4 figs.

3678.—Varley, G. C. & **Edwards,** R. L. An olfactometer for observing the behaviour of small animals. Nature, London **171** : 789–790, 3 figs.

3679.—[Vasit', K.] Contribution à la connaissance de la morphologie et de la biologie d'*Euxoa aquilina* Schiff. [In Serbian with French summary.] Trav. Acad. serbe Sci., Belgrade **31** Inst. Ecol. Biogéogr. no. **4** : 185–208, 2 pls. [Lep.]

3680.—Vaurie, P. The Gregorio Bondar types of South American weevils (Coleoptera, Curculionidae). Amer. Mus. Novit., New York no. 1615 : 1–39.

3681.—Vaurie, P. & C. Collecting in Sonora, Mexico, including Tiburon Island. J. New York ent. Soc. **61** : 79–91, 1 fig.

3682.—Vazirani, T. G. On a collection of aquatic Coleoptera from the Mettur dam, Salem district, Madras, with the description of a new species. Rec. Indian Mus., Delhi **50** : 423–428, 1 fig.

3683.—Vázquez G., L. Observaciones sobre Piéridos mexicanos con descripciones de algunas formas nuevas. An. Inst. Biol., Mexico **23** 1952 : 257–267, 1 fig. [Lep.]

3684.—Vázquez G., L. Obervaciones sobre Papilios de México, con descripciones de algunas formas nuevas ; una especie nueva para México y localidades nuevas de algunos otros. III. An. Inst. Biol., Mexico **24** : 171–175, 2 figs.

3685.—Vecht, J. van der. The carpenter bees (*Xylocopa* Latr.) of Celebes, with notes on some other Indonesian *Xylocopa* species. Idea, Bogor **9** : 57–69, 1 pl. Also as Publ. Org. sci. Res. Indonesia, Djakarta no. 37 [?1952] : 2–14, 1 pl. [Hym.]

3686.—Vecht, J. van der. On some aspects of the numerical variation of insects in the Tropics. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 272–277.

3687.—Vecht, J. van der. Indo-Australian Pompilidae (Hym.) II. An annotated list of the oriental species of the genus *Hemipepsis* Dahlb. Treubia, Bogor **22** : 1–17.

3688.—Vecht, J. van der & Wilcke, J. The *Hemipepsis* species of Java (Hym. Pompilidae). Treubia, Bogor **21** : 658–724, 10 figs.

Veiga Ferreira, G. da *see* Ferreira & Veiga Ferreira.

3689.—Venard, C. E. & Mead, F. W. An annotated list of Ohio mosquitoes. Ohio J. Sci., Columbus **53** : 327–331. [Dipt.]

3690.—Venkatachala Murthy, M. R. & Sreenivasaya, M. Effect of antibiotics on the growth of the silkworm, *Bombyx mori* L. Nature, London **172** : 684–685. [Lep.]

3691.—Venkat Rao, V. & Annaji Rao, A. V. A further note on gonotrophic discordance in *A. annularis*. (Abstract). Indian J. Malar., Calcutta **7** : 221.

3692.—Venkatraman, T. V. & Govil, M. L. Some effects of low temperature on the biology of *Trichogramma evanescens minutum* Riley in mass breeding. Indian J. Ent., New Delhi **14** (1952) : 215–227, 6 figs.

3693.—Venturi, F. Notulae dipterologicae. V. Revisione sistematica del genere *Metopia* Meigen (Diptera Sarcophagidae) in Italia. Boll. Ist. Ent. Univ. Bologna **19** : 147–170, 20 figs.

Venugopal, S. *see* Ananthanarayanan & Venugopal.

Verbeke, J. *see* Delucchi & Verbeke.

3694.—Verdcourt, B. The occurrence of a species of *Helicopsyche* Bremi (Trich., Sericostomatidae) in tropical Africa. Ent. mon. Mag., London **89** : 106, 1 fig.

3695.—Verdcourt, B. The occurrence of a species of caddis fly, *Helicopsyche* Bremi (Trichoptera Sericostomatidae), in tropical Africa. J. E. Afr. nat. Hist. Soc., Nairobi **21** 1952 : 67–68.

3696.—Verdier, P. Description de deux espèces nouvelles de *Nebria* (Col. Nebriidae) du Haut-Atlas. Bull. Soc. Sci. nat. Maroc, Rabat **31** (1951): 273–275, 3 figs.

Verdier, P. *see* Huttel, W. & N. & Verdier.

3697.—Verity, R. Le farfalle diurne d'Italia. Volume quinto. Divisione Papilionida. Sezione Nymphalina : Famiglia Satyridae. Florence, Casa editrice Marzocco xix and 354 pp., 16 pls. (10 col.), 11 figs.

3698.—Verity, R. On the supposed discoveries of new butterfly species in Europe. Entomologist, London **86** : 172–175.

3699.—Verity, R. Les noms des Zygènes *gallica-mana-crebus*, d'après les règles de la nomenclature zoologique. Rev. franç. Lépid., Paris **14** : 50–51.

3700.—Verma, S. C. & Chattoraj, A. N. A note on the study of insect tracheal system. Curr. Sci., Bangalore **22** : 344–345, 1 fig.

3701.—Vermeil, C. *Aedes vittatus* Bigot 1861, Culicide nouveau pour la Tunisie. Bull. Soc. Path. exot., Paris **46** : 338–339. [Dipt.]

3702.—Vermeil, C. Contribution à l'étude des Culicides du Fezzan (Lybie). Présence d'*Anopheles broussesi* E. à El Barka (Territoire de Rhat). Bull. Soc. Path. exot., Paris **46** : 445–454, 2 figs. [Dipt.]

3703.—Vernalha, M. M. Contribuição zoogeográfica para o estudo dos Curculionídeos do Paraná. Arq. Biol. Tecn., Curitiba **7** 1952 : 33–37. [Col.]

3704.—Vernalha, M. M. Descrição de uma espécie nova do gênero *Dichotomius* Hope 1838 (Col. Scarabaeidae). Arq. Biol. Tecn., Curitiba **7** 1952 : 39–42, 2 pls.

3705.—Vernalha, M. M. Algumas formigas que ocorrem no Estado do Paraná (Hym. Formicidae). Subfamílias : Dorylinae, Ponerinae, Dolichoderinae, Pseudomyrminae, Myrmicinae e Formicinae. Arq. Biol. Tecn., Curitiba **7** 1952 : 43–51.

3706.—Verrier, M. L. Le rhéotropisme et les larves d'Ephémères. Bull. biol., Paris **87** : 1–33, 2 pls. 13 figs.

3707.—Verrier, M. L. La collection d'Ephéméroptères de R. Despax. Bull. Soc. ent. France, Paris **58** : 42–47.

3708.—Verrier, M. L. Note biogéographique sur *Thraulus bellus* Etn. (Ephemeroptera). Bull. Soc. ent. France, Paris **58** : 54–55.

3709.—Verrier, M. L. Ephéméroptères récoltés par M. Paul Remy au Hoggar et au Tidikelt. Bull. Soc. zool. Fr., Paris **77** : 292–304, 7 figs.

3710.—Verron, H. Sur la possibilité d'un apprentissage latent chez *Blattella germanica*. C.R. Acad. Sci., Paris **237** : 1442–1443. [Orth.]

3711.—Verron, H. Action de l'environnement et de la lumière réfléchie sur le comportement de *Blattella germanica*. C.R. Soc. Biol., Paris **147** : 968–969. [Orth.]

Viana, M. J. *see* Monrós & Viana.

3712.—Vidal, J.-P. Révision du genre *Melanocoryphus* (Hémiptères-Lygaeidae). Bull. Soc. Sci. nat. Maroc, Rabat **32** (1952) : 133–135.

3713.—Viette, P. E. L. Lépidoptères récoltés aux Iles Gilbert (Pacifique central). Ann. Soc. ent. Fr., Paris **122** : 123–130.

3714.—Viette, P.-E.-L. Descriptions de nouvelles espèces de Pyrales de la faune malgache (Ins. Lépid.). Bull. mens. Soc. linn. Lyon **22** : 203–209, 5 figs.

3715.—Viette, P. Sur la synonymie de quelques noms de Lépidoptères. Bull. Mus. Hist. nat., Paris (2) **24** (1952) : 555–556.

3716.—Viette, P. Nouvelles descriptions de Pyrales malgaches (Lepid. Pyraustidae). Bull. Mus. Hist. nat., Paris (2) **25** : 483–488.

3717.—Viette, P. Les types de tordeuses de Meyrick appartenant au Muséum de Paris. Bull. Soc. ent. Fr., Paris **57** (1952) : 148–152. [Lep.]

3718.—Viette, P. Nouvelles Pyrales de Madagascar (Lep. Pyralidae). Bull. Soc. ent. Fr., Paris **58** : 130–134, 7 figs.

3719.—Viette, P. E. L. Descriptions de deux nouveaux Microlépidoptères de l'île Maurice. Bull. Soc. zool. France, Paris **78** : 138–141, 2 figs.

3720.—Viette, P. E. L. Contribution to the study of Hepialidae (29th note). Entomologist, London **86** : 81–82, 1 fig. [Lep.]

3721.—Viette, P. *Yponomeuta padella* (L.) et *malinellus* (Z.), bonnes espèces ou races éthologiques ? Entomologiste, Paris **8** 1952 : 132–134. [Lep.]

3722.—Viette, P. Considérations sur le néotype. Entomologiste, Paris **9** : 13–20.

3723.—Viette, P. E. L. Contribution à l'étude des Hepialidae (30e note). Lambillionea, Brussels **53** : 32–35, 2 figs. [Lep.]

3724.—Viette, P. E. L. Étude de quelques vieux types de *Procris* Fabricius (Lepidop. Zygaenidae). Lambillionea, Brussels **53** : 38–45, 10 figs.

3725.—Viette, P. E. L. Lepidoptera. Results Norweg. Exped. Tristan da Cunha 1937–1938, Oslo no. 23 1952 : 1–19, 3 pls. 19 figs.

3726.—Viette, P. Nouvelles Pyrales de Madagascar (Lepidoptera). Rev. franç. Ent., Paris **20** : 130–137, 6 figs.

3727.—Viette, P. Notes sur Madagascar (1). Rev. franç. Lépid., Paris **13** (1952) : 272–281, 3 pls. 1 map.

3728.—Viette, P. E. L. Lepidoptera. Sci. Res. Norw. Antarct. Exped. 1927–1928, Oslo no. 33 1952 : 1–4, 1 fig.

Viette, P. *see* Marion & Viette.

3729.—[Viktorov, G. A.] Contribution to the systematics of Hymenoptera, Ichneumonidae of the tribe Nototrachini. [In Russian.] Zool. Zhurn., Moscow **32** : 467–471, 6 figs.

3730.—Villiers, A. Les Endomychidae africains. IV. Notes sur les genres *Chetryus* Villiers et *Microtycherus* Pic. Bull. Ann. Soc. ent. Belg., Brussels **89** : 256–257, 3 figs. [Col.]

3731.—Villiers, A. Notes éthologiques sur quelques Coléoptères du Sénégal. Bull. Inst. franç. Afr. noire, Dakar **15** : 1329–1333.

3732.—Villiers, A. Les Endomychidae africains III. Notes sur diverses espèces du genre *Trycherus*. Bull. Inst. franç. Afr. noire, Dakar **15** : 1463–1505, 160 figs. [Col.]

3733.—Villiers, A. Un nouveau *Systelloderes* du Vénézuéla (Hemiptera Henicocephalidae). Bull. Mus. Hist. nat., Paris (2) **25** : 95–96, 3 figs.

3734.—Villiers, A. Types déposés au Muséum national d'Histoire naturelle par l'Institut français d'Afrique noire (4e liste). Bull. Mus. Hist. nat., Paris (2) **25** : 163–168.

3735.—Villiers, A. Les Endomychidae africains, I. Le genre *Africanasaula* Pic (Col.). Bull. Soc. ent. Fr., Paris **58** : 134–136, 4 figs.

3736.—Villiers, A. Reduviidae (Hemiptera, Heteroptera). Explor. Parc nat. Albert, Miss. de Witte (1933–35), Brussels fasc. 79 : 35–56, 5 figs.

3737.—Villiers, A. Languriinae et Cladoxeninae (Coleoptera Clavicornia) Fam. Erotylidae. Explor. Parc nat. Upemba. Miss. de Witte (1946–49), Brussels fasc. 15 1952 : 1–42, 54 figs.

3738.—Villiers, A. La réserve naturelle intégrale du Mt Nimba, fascicule 1. XIV. Hémiptères Hétéroptères terrestres. Mém. Inst. franç. Afr. noire, Dakar no. 19 1952 : 289–309.

3739.—Villiers, A. Les Reduviides de Madagascar IX et X. Mém. Inst. sci. Madagascar, Tananarive (E) **3** : 33–39, 10 figs. [Hem.]

3740.—Villiers, A. Les Cassides. Notes afr., Dakar no. 60 : 92–94, 8 figs. [Col.]

3741.—Villiers, A. Des charançons aquatiques. Notes afr., Dakar no. 60 : 94–95, 2 figs. [Col.]

3742.—Villiers, A. Le papillon du kad. Notes afr., Dakar no. 60 : 121–123, 6 figs. [Lep.]

3743.—Villiers, A. Les Endomychidae africains. II, *Malindus excavatus*, nov. gen., nov. sp. (1). Rev. franç. Ent., Paris **20** : 181–183, 3 figs. [Col.]

3744.—Villiers, A. Emesinae cavernicoles du Congo belge (Hemiptera Reduviidae). Rev. Zool. Bot. afr., Tervuren **47** : 31–33.

3745.—Vinson, J. Coléoptères nouveaux ou peu connus de l'île de la Réunion. Bull. Soc. ent. Fr., Paris **58** : 143–146, 2 figs.

3746.—Virkki, N. Versuch einer Kernanalyse bei den somatischen Hodenzellen der *Aphodius*-Arten (Coleoptera, Scarabaeidae). Chromosoma, Vienna **6** : 1–32, 8 figs.

3747.—Vishnoi, H. S. On the structure and function of a fold in the crop of the termite *Coptotermes heimi* Wasmann. Proc. 4th Indian Sci. Congr. Lucknow, Calcutta Part III Abstracts : 193. [Isopt.]

3748.—Vité, J. P. Die holzzerstörenden Insekten Mitteleuropas. Göttingen, "Musterschmidt", Wissenschaftlicher Verlag Textband 1952 [6+] 155 [+2] pp. 10 pls., figs.; Tafelband 1953 78 pp. 227 figs. (many col.)

3749.—Vockeroth, J. R. *Musca autumnalis* Deg. in North America (Diptera: Muscidae). Canad. Ent., Ottawa **85**: 422–423.

Vogel, jr., H. H. *see* Tahmisian & Vogel.

Vogelsang, E. G. *see* Souza Lopes & Vogelsang.

3750.—Vogt, C. & O. Sitz und Wesen der Krankheiten im Lichte der topistischen Hirnforschung und des Variierens der Tiere. II. Teil, 1. Hälfte. Zur Einführung in das Variieren der Tiere. Die Erscheinungsseiten der Variation. J. Psychol. Neurol., Leipzig **48** 1938: 169–324, 648 figs.

3751.—Voigt, E. Ein Haareinschluss mit Phthirapteren Eiern in Bernstein. Mitt. geol. (St)Inst. Hamburg **21** 1952: 59–74, 3 pls. 8 figs. [Fossil.]

3752.—Vollbrechtshausen, R. Bakterien als Symbionten, Synöken und Parasiten bei *Phyllodromia germanica*. Z. Parasitenk., Berlin **15**: 437–456, 2 figs. [Orth.]

3753.—Vondráček, K. Jumping plant-lice (Psyllinea) in the collections of the Moravian Museum (Brno). Melichar's collection revised, part II. [In Czech & Latin.] Acta Mus. Morav., Brno **38**: 174–179. [Hem.]

3754.—Voss, E. Ergänzende Ausführungen zur Gattung *Promecops* Schoenh. und *Pseudeudius* Voss an Hand typischer Exemplare aus dem Riksmuseum Stockholm. Ark. Zool., Stockholm (N.S.) **4**: 423–438, 5 figs. [Col.]

3755.—Voss, E. Bemerkungen zu einigen in Guatemala gesammelten Cossoninen (Coleoptera). Beitr. Ent., Berlin **3**: 611–615, 1 fig.

3756.—Voss, E. Curculionidae: Oxycoryninae, Belinae, Archolabinae, Attelabinae, Apoderinae. Coleopt. Catal. (Suppl.), 's-Gravenhage partes 144, 110, 19 & 34 pp.

3757.—Voss, E. Ueber einige in Fukien (China) gesammelte Rüssler IV (Col., Curc.). Ent. Bl., Krefeld **49**: 42–82, 7 figs.

3758.—Voss, E. Neue und bemerkenswerte Curculioniden aus Colombien und Bolivien (Col. Curc.). Ent. Mitt. Hamburg no. 2: 55–84, 4 figs.

3759.—Voss, E. Einige Rhynchophoren der Bernsteinfauna (Col.). Mitt. geol. (St)Inst. Hamburg **22**: 119–140, 12 figs. [Fossil.]

3760.—Voss, E. Eine neue *Smicronyx*-Art aus Deutschland und eine Uebersicht über die mit ihr näher verwandten Arten (Col. Curc.). NachrBl. bayer. Ent., Munich **2**: 6–8, 14–15, 22–23, 29–30.

3761.—Voss, E. Uebersicht über die paläarktischen *Tanysphyrus*-Arten. NachrBl. bayer. Ent., Munich **2**: 57–58, 2 figs. [Col.]

3762.—Voss, E. Einige Cossoninen aus Belgisch-Congo (Col. Curc.). Rev. Zool. Bot. afr., Tervuren **47**: 282–296, 3 figs.

3763.—Voy, A. La croissance linéaire et les phases du développement post-embryonnaire chez le phasme femelle (*Clonopsis gallica* Charp.). C.R. Acad. Sci., Paris **236**: 2447–2449. [Orth.]

3764.—Vrydagh, J.-M. Contribution à l'étude de la zone d'inondation du Niger (mission G. Remaudière, 1950) III. Coléoptères Bostrychidae. Bull. Inst. franç. Afr. noire, Dakar **15**: 1535–1538.

3765.—Vrydagh, J.-M. Contribution à l'étude des Bostrychidae (Coleoptera Teredilia). 1, 2. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 4: 1–4, no. 26: 1–6.

3766.—[Vukasovit', P.] An attempt of using small tubes for catching female mosquitoes *Anopheles maculipennis* in order to determine their varieties. [In Serbian.] Bull. Inst. Hyg., Belgrade **1** 1952: 222–223. [Dipt.]

3767.—[Vukasovit', P. & Nartinovit', A.] Contribution à l'étude des variétés d'*Anopheles maculipennis* à Sandzak (Sandjak). [In Serbian with English summary.] Bull. Inst. Hyg., Belgrade **2**: 64–71. [Dipt.]

3768.—Waddington, C. H. Genetic assimilation of an acquired character. Evolution, Lancaster, Pa. **7** : 118–126, 2 figs. [Dipt.]

3769.—Wagner, E. Beitrag zur Systematik der Cydnidae (Hem. Heteropt.). Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 382 : 35–46, 9 figs.

3770.—Wagner, E. Ueber einige osteuropäische und innerasiatische Heteropteren. Beitr. Ent., Berlin **3** : 388–394, 24 figs. [Hem.]

3771.—Wagner, E. Contributo alla conoscenza della fauna emitterologica italiani. Boll. Ass. romana Ent., Rome **6** 1951 : 1–8, 4 figs., 13–15, 1 fig., 18–19 ; **7** 1952 : 13–14, 25–27, 1 fig.

3772.—Wagner, E. Beitrag zur Systematik der Gattung *Geotomus* Muls.-Rey (Hemiptera Heteroptera : Cydnidae). Bull. Soc. Fouad ler Ent., Cairo **37** : 459–476, 89 figs.

3773.—Wagner, E. On the insect fauna of Cyprus. Results of the expedition of 1939 by Harald, Håkan and P. H. Lindberg. X. Nachtrag zur Heteropterenfauna von Zypern. Comment. biol., Helsingfors **13** no. 14 : 1–17, 50 figs. [Hem.]

3774.—Wagner, E. Was ist *Orthotylus salsolae* Reuter 1875 ? Ent. Ber., Amsterdam **14** : 267–270, 11 figs. [Hem.]

3775.—Wagner, E. Zwei neue *Amblytylus*-Arten aus Nordafrika (Hem. Het. Miridae). Ent. Ber., Amsterdam **14** : 401–404, 17 figs.

3776.—Wagner, E. *Deraeocoris ventralis* Reut., eine bisher übersehene deutsche Miriden-Art (Hem. Heteropt.). Nachr. naturw. Mus. Aschaffenburg no. 39 : 47–53, 1 pl.

3777.—Wagner, E. *Trigonotylus brevipes* Jak. und *pallidicornis* Reut. (Hem. Heteropt. Miridae). Nachr. naturw. Mus. Aschaffenburg no. 40 : 59–68, 2 pls.

3778.—Wagner, E. *Halocapsus* (*Orthotylus*) *contrarius* nov. spec. (Hem. Heteropt. Miridae). Nachr. naturw. Mus. Aschaffenburg no. 40 : 69–72, 2 pls.

3779.—Wagner, E. Die Artberechtigung von *Piesma rotundicollis* Rey (Hem. Het. Piesmidae). Nachr. naturw. Mus. Aschaffenburg no. 41 : 67–74, 3 pls.

3780.—Wagner, E. *Pentacora iberica* n. sp., eine neue spanische Saldidenart (Hemipt. Heteropt.). Eos, Madrid **29** : 281–282.

3781.—Wagner, E. Eine neue Pentatomidenart aus Südfrankreich (Hem. Heteropt.). Rev. franç. Ent., Paris **20** : 39–42, 13 figs.

3782.—Wagner, E. Eine neue Miridenart aus Süd-Frankreich (Hemipt. Heteropt.). Rev. franç. Ent., Paris **20** : 84–86, 20 figs.

3783.—Wagner, E. Festlegung der Fieberschen und Putonschen Typen aus der Gattung *Sciocoris* Fall. (Hem. Heteroptera). Rev. franç. Ent., Paris **20** : 271–276.

3784.—Wagner, E. *Carpocoris* (*Anthemisia*) *absinthii* nov. sp. (Hém. Hét. Pentatomidae) du sud de la France. Vie et Milieu, Paris **3** 1952 : 306–310, 16 figs.

Wagner, R. P. *see* Wortman & Wagner.

3785.—Wagner, W. Eine neue *Macropsis*-Art (Hem. Hom.) aus den Niederlanden. Ent. Ber., Amsterdam **14** : 232–234, 6 figs.

3786.—Wahlgren, E. Cecidiologiska anteckningar VII. Ent. Tidskr., Stockholm **74** : 137–151.

3787.—Wahlgren, E. Ueber das Cecidium von *Oligotrophus juniperinus* L. (Dipt. Cecid.). Opusc. ent., Lund **18** : 213–219.

3788.—Waku, Y. On the diurnal rhythm of activity in Japanese beetle. [In Japanese with English summary.] Ecol. Rev., Sendai **13** 1952 : 99–105, 3 figs. [Col.]

3789.—Waku, Y. The insect community in rape field during the spring. Ecol. Rev., Sendai **13** : 183–188, 4 figs.

3790.—Waldhauer, W. Ueber Rassendifferenzierung im Formenkreis der grünen Pfirsichblattlaus (*Myzodes persicae* Sulz.). NachrBl. dtsch. PfSchDienst, Berlin (N.F.) **7** : 95–99, 4 figs. [Hem.]

3791.—Walker, E. M. The Odonata of Canada and Alaska. Vol. I. Univ. Toronto Press & London, Cumberlege, Oxford Univ. Press xi & 292 pp. 44 pls.

3792.—Wallace, B. On coadaptation in *Drosophila*. Amer. Nat., New York **87** : 343–358, 5 figs. [Dipt.]

3793.—Wallace, B. & **Madden,** C. The frequencies of sub- and supervitals in experimental populations of *Drosophila melanogaster*. Genetics, Menasha **38** : 456–470, 2 figs. [Dipt.]

3794.—Wallace, H. R. Notes on the biology of *Plastosciara pernitida* Edwards and *Plastosciara schineri* Winnertz (Dipt., Sciaridae). Ent. mon. Mag., London **89** : 118–120, 1 fig.

3795.—Wallace, H. R. The ecology of the insect fauna of pine stumps. J. Anim. Ecol., London **22** : 154–171, 6 figs.

3796.—Wallace, H. R. Notes on the biology of *Coranus subapterus* de Geer (Hemiptera : Reduviidae). Proc. R. ent. Soc. London (A) **28** : 100–110, 5 figs.

3797.—Walley, G. S. Hymenopterous parasites of *Choristoneura pinus* Free. (Lepidoptera : Tortricidae) in Canada. Canad. Ent., Ottawa **85** : 152.

3798.—Wallis, R. C. A technique for micromanipulation of mosquitoes. Mosq. News, Albany **13** : 15–16, 1 fig. [Dipt.]

3799.—Wallis, R. C. & **Spielman,** A. Laboratory rearing of *Culex salinarius* (Diptera, Culicidae). Proc. ent. Soc. Wash. **55** : 140–142.

3800.—Wallon, L. J. "Anecballie", mutation dans le comportement des abeilles domestiques. Ann. Soc. zool. Belg., Louvain **81** (1950) 1951 : 179–184. [Hym.]

3801.—Waloff, N. Notes on the Orthoptera in Cyprus, April, 1950. Proc. R. ent. Soc. London (A) **28** : 24–50.

3802.—Waloff, Z. Flight in desert locusts in relation to humidity. Bull. ent. Res., London **43** : 575–580. [Orth.]

3803.—Walrecht, B. J. J. R. Het bouwinstinct der sociale wespen. Levende Nat., Amsterdam **56** : 13–18, 35–38, 53–59, 5 figs. [Hym.]

3804.—Walrecht, B. J. J. R. Het nest van *Anthophora acervorum* L. Levende Nat., Amsterdam **56** : 166–170, 1 fig. [Hym.]

3805.—Walshe-Maetz, B. M. Le métabolisme de *Chironomus plumosus* dans des conditions naturelles. Physiol. comp., The Hague **3** : 135–154, 6 figs. [Dipt.]

3806.—Wanson, M. Le problème des moustiques anversois. Ann. Soc. zool. Belg., Brussels **83** 1952 [1953] : 339–369. [Dipt.]

3807.—Ward, R. A. Brief notes on the Mallophaga. I. Ent. News, Lancaster, Pa. **64** : 201–204.

3808.—Warnecke, G. *Derthisa trimacula* Schiff. (*Episema glaucina* Esp.) (Lep. Noct.) und ihre Verbreitung in Deutschland. Dtsch. ent. Z., Iris, Dresden **55** (1941) 1942 : 17–22, 1 map.

3809.—Warnecke, G. Zur Kenntnis von *Gnophos intermedia* Whli. (Lep. Geom.). Dtsch. ent. Z., Iris, Dresden **55** (1941) 1942 : 23–27, 2 pls. 2 figs.

3810.—Warnecke, G. Grundsätzliches über "Rassen" bei Lepidopteren. (Die Rassenbildung von *Satyrus semele* L.). Dtsch. ent. Z., Iris, Dresden **57** (1943) 1944 : 28–41.

3811.—Warnecke, G. Ueber den Einflug von *Deilephila lineata livornica* Esp. in Mitteleuropa im Jahr 1952 (erste Mitteilung). Ent. Z., Frankfurt a. M. **62** : 180–182. [Lep.]

3812.—Warnecke, G. Zur Verbreitung von *Phytometra bractea* F. (Lep. Noct.) in Mitteleuropa. Ent. Z., Frankfurt a. M. **63** : 57–63.

3813.—Warnecke, G. Verschollene Grossschmetterlinge der deutschen Fauna. Ent. Z., Frankfurt a. M. **63** : 82–86, 90–91. [Lep.]

3814.—Warnecke, G. *Phytometra consona* F. (Lep. Noct.), eine typische Steppenart in Mitteldeutschland. Ent. Z., Frankfurt a. M. **63** : 115–118, 1 map.

3815.—Warnecke, G. Die Verbreitung des Spannerschmetterlings *Larentia olivata* L. in Schleswig-Holstein. Schr. naturw. Ver. Schl.-Holst., Kiel **26** : 158–159. [Lep.]

3816.—Warren, B. C. S. Three unrecognized species of the genus *Pyrgus* (Lep., Hesperiidae). Entomologist, London **86** : 90–103, 2 pls.

3817.—Warren, B. C. S. Problems of speciation in the genus *Erebia*. Ent. Rec., Bishop's Stortford, Herts **65** no. 10 suppl. : 1–6, 1 pl. [Lep.]

3818.—Wasser, H. B. & **Steinhaus,** E. A. Isolation of a virus causing granulosis in the red-banded leaf roller. Virginia J. Sci., Richmond (N.S.) **2** 1951 : 91–93, 5 figs. [Lep.]

3819.—Watanabe, C. Notes on Hymenopterous parasites of Longicorn beetles, with descriptions of two new species of Braconidae. Insecta matsum., Sapporo **18** 1952 : 25–29, 2 figs.

3820.—Watanabe, C. Synonymy and other notes on Braconidae (Hymenoptera). Insecta matsum., Sapporo **18** 1952 : 41–42.

3821.—Watanabe, C. & **Kosugi,** K. Discovery of *Orussus japonicus* Tosawa in Hokkaido (Hymenoptera, Orussidae). Insecta matsum., Sapporo **18** 1952 : 34.

3822.—Watanabe, M. I. & **Williams,** C. M. Mitochondria in the flight muscles of insects. II. Effects of the medium on the size, form and organization of isolated sarcosomes. J. gen. Physiol., Baltimore **36** : 71–89, 5 figs.

3823.—Watanabe, S. & **Kozima,** K. On the method of estimating the larval population of soy bean beetle, *Anomala rufocuprea* Motschulsky. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** 1952 : 27–33, 2 figs. [Col.]

3824.—Waterhouse, D. F. Studies on the digestion of wool by insects. IX. Some features of digestion in chewing lice (Mallophaga) from bird and mammalian hosts. Aust. J. biol. Sci., Melbourne **6** : 257–275, 2 pls. 5 figs.

3825.—Waterhouse, D. F. The occurrence and significance of the peritrophic membrane, with special reference to adult Lepidoptera and Diptera. Aust. J. Zool., Melbourne **1** : 299–318, 2 pls. 5 figs.

3826.—Waterhouse, D. F. Occurrence and endodermal origin of the peritrophic membrane in some insects. Nature, London **172** : 676–677.

3827.—Waterhouse, F. L. Reversal of phototaxis in prepupae of Hymenoptera (Tenthredinidae) caused by amyl acetate vapour emanating from marking paint. Nature, London **171** : 438.

3828.—Way, M. J. The relationship between certain ant species with particular reference to biological control of the Coreid, *Theraptus* sp. Bull. ent. Res., London **44** : 669–691, 1 pl. 8 figs. [Hym., Hem.]

3829.—Weber, H.-H. Contribution à la faune des Hétéroptères de Pylas-sur-mer (Gironde). Cah. Nat., Paris (N.S.) **8** : 113–114. [Hem.]

3830.—Weber, H. Die Darmtracheenschläuche der Elefantenlaus, ein für die Insekten neues Organ. Naturwissenschaften, Berlin **40** : 42, 1 fig. [Malloph.]

3831.—Weber, N. A. Arctic Alaskan Hymenoptera and Coleoptera. Ent. News, Lancaster, Pa. **64** : 256–260.

Weber, R. *see* Petersen & Weber.

Weber, W. *see* Becker & Weber.

Webster, A. P. *see* DeCoursey & Webster ; DeCoursey, Webster, Taylor, Leopold & Kathan.

3832.—Weems, jr., H. V. Notes on collecting Syrphid flies (Diptera : Syrphidae). Florida Ent., Gainesville **36** : 91–98.

3833.—Weerekoon, A. C. J. On the behaviour of certain Ceratopogonidae (Diptera). Proc. R. ent. Soc. London (A) **28** : 85–92, 2 figs.

3834.—Weesner, F. M. The biology of *Tenuirostritermes tenuirostris* (Desneux) with emphasis on caste development. Univ. Calif. Publ. Zool., Berkeley **57** : 251–301, 2 pls. 12 figs. [Isopt.]

3835.—Wegner, A. M. R. On a collection of Rhopalocera from Pulau Panaitan (Prinsen Eiland) with description of a new species (Lepidoptera). Idea, Bogor **9** : 46–50, 1 pl. Also as Publ. Org. sci. Res. Indonesia, Djakarta no. 36 [?1952] : 3–7, 1 pl.

3836.—Wehrle, L. P. A host index of some Arizona fleas (Siphonaptera). Pan-Pacif. Ent., San Francisco **29** : 37–41.

3837.—Weidner, H. Die Ameisengrille im Altmühltal. Ent. Z., Frankfurt a. M. **63** : 121–125, 1 fig. [Orth.]

3838.—Weidner, H. Gibt es eine Gibbonlaus ? Mitt. hamburg. zool. Mus. **52** : 61–76, 13 figs. [Anopl.].

3839.—Weidner, H. Ein Fund des Ameisenlöwenparasiten *Hybothorax graffi* Ratzeburg 1844 (Hym. Chalcididae). Nachr. naturw. Mus. Aschaffenburg no. 40 : 73–76.

3840.—Weiffenbach, H. Monophage und polyphage Tenthrediniden auf *Senecio fucsii* Dur. (Hym.). Z. wien. ent. Ges., Vienna **38** : 181–185.

3841.—Weise, E. Autochthones Massenvorkommen von *Emus hirtus* L. (Col., Staphyl.). Ent. Bl., Krefeld **49** : 20–21.

Weise, E. *see* Steinhausen & Weise.

3842.—Weiser, J. Parasiten der Raupen der Sonnenblumenmotte, *Homeosoma nebulellum* Hbn. mit besonderer Rücksicht zur Art *Mattesia povolnyi* sp. n. [In Czech with German summary.] Zool. ent. Listy, Brno **1** 1952 : 252–264, 4 pls. 3 figs. [Lep.]

Weiser, J. *see* Kramář, Weiser & Rosický.

Weiss, D. *see* Moucha & Weiss.

3843.—Weiss, H. B. The periodical Cicada in New Jersey in 1953. J. New York ent. Soc. **61** : 159–161. [Hem.]

3844.—Weiss, K. Versuche mit Bienen und Wespen in farbigen Labyrinthen. Z. Tierpsychol., Berlin **10** : 29–44, 21 figs. [Hym.]

3845.—Weitz, B. & **Buxton,** P. A. The rate of digestion of blood meals of various haematophagous arthropods as determined by the precipitin test. Bull. ent. Res., London **44** : 445–450.

3846.—Wellington, W. G. Motor responses evoked by the dorsal ocelli of *Sarcophaga aldrichi* Parker, and the orientation of the fly to plane polarized light. Nature, London **172** : 1177–1179, 2 figs. [Dipt.]

Wellington, W. G. *see* Sullivan & Wellington.

Wenig, K. *see* Doskočil, Janda & Wenig.

3847.—Wenk, P. Der Kopf von *Ctenocephalus canis* (Curt.) (Aphaniptera). Zool. Jb., Jena (Anat.) **73** : 103–164, 54 figs.

3848.—Wenzel, R. L. Research aided by Amber collector. Bull. Chicago nat. Hist. Mus. **24** no. 8 : 6–7.

3849.—Werneck, F. L. Contribuição ao conhecimento dos Anopluros. IV. Rev. brasil. Biol., Rio de Janeiro **13** : 53–64, 18 figs.

3851.—West, A. S. New tools for entomological research. Proc. New Jersey Mosq. Ext. Ass., New Brunswick **40** : 156–163.

3852.—Westfall, jr., M. J. The nymph of *Miathyria marcella* Selys (Odonata). Florida Ent., Gainesville **36** : 21–25, 1 pl.

3853.—Westfall, jr., M. J. Notes on Florida Odonata, including additions to the State list. Florida Ent., Gainesville **36** : 165–173.

Whalen, M. M. *see* Bird & Whalen.

3854.—Wharton, R. H. The habits of adult mosquitoes in Malaya. IV. Swarming of Anophelines in nature. Ann. trop. Med. Parasit., Liverpool **47** : 285–290, 1 fig. [Dipt.]

3855.—Wheeler, G. C. & J. The ant larvae of the subfamily Ponerinae—Part II. Amer. Midl. Nat., Notre Dame, Ind. **48** 1952 : 604–672, 6 pls. [Hym.]

3856.—Wheeler, G. C. & J. The ant larvae of the subfamily Formicinae. Ann. ent. Soc. Amer., Columbus **46** : 126–171, 175–217, 6 pls. 2 figs. [Hym.]

3857.—Wheeler, G. C. & J. The ant larvae of the Myrmicine tribes Melissotarsini, Metaponini, Myrmicariini and Cardiocondylini. J. Wash. Acad. Sci. **43** : 185–189, 20 figs. [Hym.]

3858.—Wheeler, G. C. & J. The ant larvae of the Myrmicine tribe Pheidolini (Hymenoptera, Formicidae). Proc. ent. Soc. Washington **55** : 49–84, 3 pls.

Wheeler, J. *see* George & Wheeler.

3859.—White, M. J. D. Multiple sex chromosome mechanisms in the grasshopper genus *Paratylotropidia*. Amer. Nat., Lancaster, Pa. **87** no. 835 : 237–244, 2 figs. [Orth.]

White *see* Senior White.

3860.—Whiting, P. W. X-ray induction of eye-color mutations in wasp parasites of blow-fly pupae. A genetics class laboratory exercise. Proc. Pa Acad. Sci., Harrisburg **26** 1952 : 21–22. [Hym.]

3861.—Whittaker, R. H. Notes on a migration of *Nymphalis californica*. Lepid. News, New Haven **7** : 9–10.

3862.—Wichmann, H. E. Untersuchungen über *Ips typographus* L. und seine Umwelt. Die Ameisen. Z. angew. Ent., Berlin **35** : 201–206, 1 fig. [Col., Hym.]

3863.—Wichmann, H. E. Der Reigenflug der Borkenkäfer. Zool. Anz., Leipzig **150** : 105–112, 4 figs. [Col.]

Wick, J. R. *see* Bonhag & Wick.

3864.—Wiedbrauck, H. Wiederholung der Metamorphose von Schmetterlingshaut. Versuche an der Wachsmotte *Galleria mellonella* L. Biol. Zbl., Leipzig **72** : 530–562, 15 figs. [Lep.]

3865.—Wigglesworth, V. B. The principles of insect physiology. 5th edn., with addenda. London, Methuen & Co. viii & 546 pp. 355 figs.

3866.—Wigglesworth, V. B. Hormones and the development of hybrid Lepidoptera. Ent. Rec., Bishop's Stortford, Herts **65** : 244–245.

3867.—Wigglesworth, V. B. Motility of insect tracheoles. Nature, London **172** : 247.

3868.—Wigglesworth, V. B. The origin of sensory neurones in an insect, *Rhodnius prolixus* (Hemiptera). Quart. J. micr. Sci., London **94** : 93–112, 16 figs.

3869.—Wigglesworth, V. B. Surface forces in the tracheal system of insects. Quart. J. micr. Sci., London **94** : 507–522, 6 figs.

3870.—Wigglesworth, V. B. Hormones and metamorphosis, with special reference to hemimetabolic insects. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 51–57.

3871.—Wilbert, H. Experimentelle Untersuchungen über Material-Kompensation bei der Entwicklung von Insekten. Z. Morph. Oekol. Tiere, Berlin **41** : 350–371, 4 figs.

3872.—Wilbert, H. Normales und experimentell beeinflusstes Auftreten von Männchen und Gynandromorphen der Stabheuschrecke. Zool. Jb., Jena (Allg. Zool.) **64** : 470–495, 9 figs. [Orth.]

Wilcke, J. *see* Vecht & Wilcke.

3873.—Wilcox, J. A. New species of Galerucinae and Alticinae with notes on other species (Coleoptera : Chrysomelidae). Ohio J. Sci., Columbus **53** : 51–58, 2 pls.

Wildbolz, T. *see* Wille & Wildbolz.

Wilkes, A. *see* Boyes & Wilkes.

3874.—Wille, H. & **Wildbolz,** T. Beobachtungen über die Eiablage des Maikäfers und die Entwicklung des Engerlings im Laboratorium. Mitt. schweiz. ent. Ges., Berne **26** : 219–224. [Col.]

3875.—Willemse, C. On a collection of Orthoptera from the Solomon Islands, chiefly from the Institut royal des Sciences naturelles de Belgique. Bull. Inst. Sci. nat. Belg., Brussels **29** no. 7 : 1–27, 17 figs.

3876.—Willett, K. C. The laboratory maintenance of *Glossina*. I. Parasitology, London **43** : 110–130, 7 figs. [Dipt.]

3877.—Williams, C. B. The relative abundance of different species in a wild animal population. J. Anim. Ecol., London **22** : 14–31, 9 figs.

3878.—Williams, C. B. Graphical and statistical methods in the study of insect phenology. Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 174–189, 13 figs.

Williams, C. M. *see* Passonneau & Williams; Schmidt & Williams; Schneidermann, Ketchel & Williams; Schneidermann & Williams; Telfer & Williams; Watanabe & Williams; Van der Kloot & Williams.

3879.—Williams, D. D. A simple *Drosophila* trap for wet weather collecting. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 24–25, 1 fig. [Dipt.]

3880.—Williams, D. J. On a new species of *Saissetia* (Hem.: Coccoidea) from Zanzibar. Bull. ent. Res., London **44**: 581–582, 1 fig.

3881.—Williams, F. X. Additions and corrections to "The wasps of the genus *Solierella* in California" (Hymenoptera: Sphecidae, Larrinae). Pan-Pacif. Ent., San Francisco **29**: 157–162, 8 figs.

3882.—Williams, J. R. The larvae and pupae of some important Lepidoptera. Bull. ent. Res., London **43**: 691–701, 5 figs.

3883.—Williams, R. W. Notes on the bionomics of the *Alluaudomyia* of Baker county, Georgia. I. Observations on breeding habitats of *bella* and *needhami* (Diptera, Heleidae). Proc. ent. Soc. Wash. **55**: 283–285.

3884.—Willink, A. Los véspidos sociales argentinos, con exclusión del género *Mischocyttarus* (Hym. Vespidae). Acta zool. lilloana, Tucuman **10** 1952: 105–151, 34 figs.

3885.—Willink, A. Sphecidos neotropicales I. (Hymenoptera). Acta zool. lilloana, Tucuman **10** 1952: 167–171.

3886.—Willink, A. Las especies argentinas y chilenas de Chlorionini (Hym. Sphecidae). Acta zool. lilloana, Tucuman **11** 1951: 53–225, 145 figs.

3887.—Wilson, C. A. A new *Velia* from Mississippi (Hemiptera: Veliidae). Florida Ent., Gainesville **36**: 27–29, 1 pl.

3888.—Wilson, C. A. A new Corixid from Mississippi (Hemiptera: Corixidae). Florida Ent., Gainesville **36**: 67–69, 4 figs.

3889.—Wilson, E. O. Origin of the variation in the imported fire ant. Evolution, Lancaster, Pa. **7**: 262–263, 1 fig. [Hym.]

3890.—Wilson, E. O. On Flanders' hypothesis of caste determination in ants. Psyche, Cambridge, Mass. **60**: 15–20. [Hym.]

3891.—Wilson, E. O. The origin and evolution of polymorphism in ants. Quart. Rev. Biol., Baltimore **28**: 136–156, 10 figs. [Hym.]

Wilson, M. *see* Park, Auerbach & Wilson.

3892.—Wilsund, E. Ny dansk storsommerfugl: *Hadena illyria* Frr. Ent. Medd., Copenhagen **26**: 499–501, 1 fig. [Lep.]

3893.—Wiltshire, E. P. Middle East Lepidoptera. XII: Two new species from South-west Persia (Iran). Proc. R. ent. Soc. London (B) **22**: 217–219, 2 figs.

3894.—Wingo, C. W. The Coccinellidae (Coleoptera) of the Upper Mississippi Basin. Iowa St. Coll. J. Sci., Ames **27** 1952: 15–53, 2 pls.

Winkler, J. *see* Havelka & Winkler.

3895.—Wirén, E. Några erfarenheter av Gotska Sandöns coleopterfauna sommaren 1947. Fauna o. Flora, Uppsala **1953**: 154–170, 6 figs.

3896.—Wirth, W. W. Biting midges of the Heleid genus *Stilobezzia* in North America. Proc. U.S. nat. Mus., Washington **103** no. 3316: 57–85, 12 figs.

3897.—Wirth, W. W. American biting midges of the Heleid genus *Monohelea*. Proc. U.S. nat. Mus., Washington **103** no. 3320: 135–153, 23 figs. [Dipt.]

3898.—Wirth, W. W. & **Blanton,** F. S. Studies in Panama *Culicoides* (Diptera, Heleidae). III. A new species related to *phlebotomus* (Williston). Ent. News, Lancaster, Pa. **64**: 113–120, 6 figs.

3899.—Wirth, W. W. & **Blanton,** F. S. Studies in Panama *Culicoides* (Diptera, Heleidae). II. J. Parasit., Lancaster, Pa. **39** : 229–236, 2 pls.

3900.—Wirth, W. W. & **Blanton,** F. S. Studies on Panama *Culicoides* (Diptera : Heleidae) : I. J. Wash. Acad. Sci. **43** : 69–77, 4 figs.

3901.—Wise, K. J. A common moth in Auckland. N.Z. Ent., Wellington **1** no. 3 : 11–12. [Lep.]

3902.—Wise, K. A. J. Host plants of *Lithocolletis messaniella* Zeller (Lepidoptera : Gracillariidae). N.Z. J. Sci. Tech., Wellington (A) **35** : 172–174, 1 pl.

3903.—Wisely, B. Two wingless alpine stoneflies (Order Plecoptera) from southern New Zealand. Rec. Canterbury [N.Z.] Mus., Christchurch **6** : 219–231, 22 figs.

3904.—Wittmer, W. 12. Beitrag zur Kenntnis der Indomalayischen Malacodermata. Ann. Mag. nat. Hist., London (12) **6** : 209–222, 13 figs. [Col.]

3905.—Wittmer, W. Zwölfter Beitrag zur Kenntnis der neotropischen Malacodermata (Col.). Ent. Arb., Munich **4** : 10–12.

3906.—Wittmer, W. 7. Beitrag zur Kenntnis der Malacodermata Afrikas (Col.). Mitt. schweiz. ent. Ges., Berne **26** : 281–286, 5 figs.

3907.—Wittmer, W. Malachiidae (Col.) aus Shansi (17. Beitrag zur Kenntnis der palaearktischen Malacodermata). Mushi, Fukuoka **25** : 71–73, 2 figs.

3908.—Wittmer, W. Un nouveau *Silidius* Gorh. de Madagascar (Col. Cantharidae). Nat. malgache, Tananarive **4** 1952 : 141–142, 1 fig.

3909.—Wittmer, W. 5. Beitrag zur Kenntnis der Malacodermata Afrikas. Proc. R. ent. Soc. London (B) **22** : 85–94, 12 figs. [Col.]

3910.—Wittstadt, H. Der Hybrid *Cel. lineata livornica* ♂ × *Perg. elpenor* ♀ = *livopenor* Müller. Ent. Z., Frankfurt a. M. **62** : 173–178. [Lep.]

3911.—Witzmann, J. Beitrag zur Lepidopterenfauna von Salzburg. Z. wien. ent. Ges., Vienna **38** : 30–31.

3912.—Wohlfahrt, T. A. A propos des éléments distinctifs caractérisant la variabilité saisonnière d'*Iphiclides podalirius* L. dans les populations des régions éloignées. Bull. Soc. ent. Mulhouse **1953** : 9–13. [Lep.]

3913.—Wohlfahrt, T. A. Geschlechtsdimorphismus am Flügelgeäder von *Strymon spini* Schiff. (Lep., Rhopalocera). NachrBl. bayer. Ent., Munich **2** : 83–84, 4 figs.

Wohlfahrt, T. A. *see* Forster & Wohlfahrt.

3914.—Wojtusiak, R. J., **Kałkowski,** W., **Medwecka-Kornaś,** A. & **Kornaś,** J. Investigations of the bottom fauna and flora in the Gulf of Gdańsk made by using a diving helmet. Part V. Bull. int. Acad. Cracovie (BII) **1951** 1952 : 117–143, 15 figs.

3915.—Wolf, B. E. Beiträge zur Chiasmenfrage. Verh. dtsch. zool. Ges., Leipzig **1952** : 295–299, 4 figs. [Dipt.]

3916.—Wolf, H. Beiträge zur Hymenopterenfauna des oberen Lahn-Dill-Sieg-Gebietes (III). Nachr. naturw. Mus. Aschaffenburg no. 41 : 83–85.

3917.—Wolfe, L. S. A study of the genus *Uropetala* Selys (order Odonata) from New Zealand. Trans. roy. Soc. N.Z., Dunedin **80** : 245–275, 5 pls. 23 figs.

3918.—Wolff, N. L. *Platyptilia capnodactyla* Zell., et zoogeografisk interessant fjermøl. Ent. Medd., Copenhagen **26** : 469–474. [Lep.]

3919.—Wolff, P. La distribution géographique des diverses variétés de couleur de la fourrure des chenilles des espèces *Lasiocampa quercus* L. et *Lasiocampa trifolii* Esp. Bull. Soc. ent. Mulhouse **1953** : 29–30, 38–40, 46–48, 53–56, 61–63, 67–70, 78–81.

3920.—Wolfinsohn, M. The rearing, marking and trapping of houseflies (*Musca domestica vicina* for dispersal studies). Bull. Res. Counc. Israel **3** : 263–264, 1 fig. [Dipt.]

3921.—Wolfinsohn, M. & **Galun,** R. A method for determining the flight range of *Aedes aegypti* (Linn.). Bull. Res. Council Israel, Jerusalem **2** : 433–436, 2 figs.

3922.—Wolfrum, P. Anthribidae. Coleopt. Catal. (Suppl.), s-Gravenhage pars 102 63 pp.

3923.—Wolfrum, P. Neue Anthribiden von Französisch Guinea (Coleoptera). Ent. Arb., Munich **4**: 16–18.

3924.—Wolfrum, P. Neue Anthribiden aus der Zoologischen Staatssammlung München. Mitt. münch. ent. Ges., Munich **43**: 314–316. [Col.]

3925.—Wolfrum, P. Neue afrikanische Arthribiden (Ins. Coleopt.). Mitt. zool. Mus. Berlin **29**: 137–147.

3926.—Wolfsberger, J. Eine neue Unterart von *Cidaria incursata* Hb. aus Graubünden (Lep. Geometr.). Mitt. schweiz. ent. Ges., Berne **26**: 233–235, 6 figs.

3927.—Wolfsberger, J. Die südlichsten Fundorte von *Biston betularia* L. f. *carbonaria* Jord. und f. *insularia* Th.-M. in Deutschland (Lep. Geometridae). NachrBl. bayer. Ent., Munich **2**: 20–22.

3928.—Wolfsberger, J. Wanderfalterbeobachtungen 1952 in Südbayern. NachrBl. bayer. Ent., Munich **2**: 25–29. [Lep.]

3929.—Wolfsberger, J. Neue und interessante Macrolepidopterenfunde aus Südbayern und den angrenzenden nördlichen Kalkalpen. NachrBl. bayer. Ent., Munich **2**: 89–92.

Wolfsberger, J. *see* Daniel & Wolfsberger.

Wood, S. F. *see* Augusteon & Wood.

3930.—Wood, S. L. Observations on the homologies of the copulatory apparatus in male Coleoptera. Ann. ent. Soc. Amer., Columbus **45** (1952): 613–617, 2 pls.

3931.—Wood-Baker, C. S. Records of seventy European Aphids (Hem.). Ent. mon. Mag., London **89**: 108–113.

3932.—Wood-Baker, C. S. Records of twenty European Aphids (Hem.). Ent. mon. Mag., London **89**: 176–177.

3933.—Wood-Baker, C. S. Records of forty-six European Aphids (Hem.). Ent. mon. Mag., London **89**: 265–270.

3934.—Woodland, J. T. The styli of the firebrat, *Thermobia domestica* (Packard). Proc. Pa Acad. Sci., Harrisburg **26** 1952 pp. 27–32, 1 pl. [Thysanura.]

3935.—Woodroffe, G. E. An ecological study of the insects and mites in the nests of certain birds in Britain. Bull. ent. Res., London **44**: 739–772, 3 pls.

3936.—Woodrow, A. W. Pollination of the red clover flower by the honey bee. J. econ. Ent., Menasha **45** (1952): 1028–1029. [Hym.]

3937.—Woodward, T. E. Notes on *Acantholybas brunneus* Breddin (Heteroptera: Coreidae). N.Z. Ent., Wellington **1** no. **3**: 8–9.

3938.—Woodward, T. E. A new subspecies of *Cermatulus nasalis* (Westwood). Hemiptera-Heteroptera: Pentatomidae. Proc. Linn. Soc. N.S.W., Sydney **78**: 41–42, 2 figs.

3939.—Woodward, T. E. New genera and species of Rhyparochrominae from New Zealand (Heteroptera: Lygaeidae). Rec. Canterbury [N.Z.] Mus., Christchurch **6**: 191–218, 39 figs.

3940.—Woodward, T. E. The Heteroptera of New Zealand. Part I.—Introduction; Cydnidae; Pentatomidae. Trans. roy. Soc. N.Z., Dunedin **80**: 299–321, 10 pls.

3941.—Woodward, T. E. The collection and preservation of insects. Tuatara, Wellington **4** 1951: 13–21, 1 pl.

3942.—Worth, C. B. Notes on the Anopheline fauna of a hill tract in Mysore State, India. Indian J. Malar., Calcutta **7**: 125–182. [Dipt.]

3943.—Worth, C. B. Observations on an association between horseflies (Diptera, Tabanidae) and cicadas (Homoptera: Cicadidae), with a note on the mating of cicadas. J. Bombay nat. Hist. Soc. **51**: 518–520.

3944.—Worth, C. B. Construction and use of a simplified window trap for insects. Mosquito News, Albany, N.Y. **13**: 204–206, 1 fig.

3945.—Wortman, B. & **Wagner,** R. P. The nicotinic acid requirement of *Drosophila melanogaster* and its relationship to the brown eye pigment. Texas J. Sci., San Marcos **5** : 34–37. [Dipt.]

3946.—Wörz, A. Die Lepidopterenfauna von Württemberg. II. Microlepidopteren. Kleinschmetterlinge. [Contd.] Jh. Ver. vaterl. Naturk. Württemb., Stuttgart **107** (1951) 1952 : 191–211 ; **108** : 90–118.

Wragge Morley *see* Morley.

3947.—Wray, D. L. Two new North American *Isotoma* (Collembola) and key to eyeless forms. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 54–56.

3948.—Wray, D. L. New North Carolina Collembola. Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 82–83.

3949.—Wray, D. L. New Collembola from Puerto Rico. J. Agric. Univ. P.R., Rio Piedras **37** : 140–150, 2 pls.

3950.—Wray, D. L. Some new species of springtail insects (Collembola). Nature Notes, Raleigh, N.C. Occ. Pap. no. 1 : 1–7, 2 pls.

3951.—Wray, D. L. & **Knowlton,** G. F. Additions to the list of the Collembola of Utah. Gr. Basin Nat., Provo **13** : 43–46.

Wright, J. C. *see* Anderson & Wright.

3952.—Wróblewski, A. Hemiptera-Heteroptera in aquatic habitats of the Island of Wolin (Western Pomerania). [In Polish with English summary.] Prace Kom. biol., Poznań **13** 1952 no. 9 : 1–21.

Wugmeister, M. *see* Ludwig & Wugmeister.

3953.—Wunderly, C. & **Gloor,** H. Versuche zur Charakterisierung der larvalen Brutproteine normaler und letaler Genotypen von *Drosophila* mittels Papier-Elektrophorese. Protoplasma, Vienna **42** : 273–282, 4 figs. [Dipt.]

3954.—Wyatt, A. K. *Schinia jaguarina*-its food plant (Lepidoptera Phalaenidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 70.

3955.—Wyatt, C. W. Einige neue Tagfalterrassen aus Spanien. Z. wien. ent. Ges., Vienna **37** 1952 : 204–207. [Lep.]

3956.—Wyatt, G. R. Studies on insect viruses and nucleic acids. Abstr. Diss. Univ. Cambridge **1950-51** : 26–27.

Wyckoff, R. W. G. *see* Smith, Wyckoff & Xeros.

3957.—Wygodzinsky, P. Sobre algunos Cryptostemmatidae, principalmente de la Argentina (Hemiptera). Acta zool. lilloana, Tucuman **10** 1952 : 51–74, 93 figs.

3958.—Wygodzinsky, P. Apuntes sobre Thysanura americanas (Apterygota, Insecta). Acta zool. lilloana, Tucuman **11** 1951 : 435–458, 73 figs.

3959.—Wygodzinsky, P. Sobre algunos Simúlidos argentinos (Diptera). An. Inst. Med. reg., Tucuman **3** : 293–320, 127 figs.

3960.—Wygodzinsky, P. Sobre algunos Simúlidos de los países andinos (Diptera). An. Inst. Med. reg., Tucuman **3** : 321–337, 104 figs.

3961.—Wygodzinsky, P. Thysanoures de l'île de Zannone (Apterygota). Boll. Soc. ent. ital., Genoa **83** : 134–136, 9 figs.

3962.—Wygodzinsky, P. On some Machilidae and Lepismatidae from Israel, Cyprus and Arabia (Thysanura, Insecta). Bull. Res. Counc. Israel, Jerusalem **2** 1952 : 260–263, 13 figs.

3963.—Wygodzinsky, P. On a new species of *Eugubinus* Distant, 1903, with notes on the genus (Emesinae, Reduviidae, Hemiptera). Dom. Mus. Rec. Ent., Wellington **1** : 213–218, 14 figs.

3964.—Wygodzinsky, P. Cryptostemmatinae from Angola (Cryptostemmatidae, Hemiptera). Publ. cult. Cia Diamant. Angola, Lisbon no. 16 : 29–47, 102 figs.

3965.—Wygodzinsky, P. Contribuição ao conhecimento dos gêneros *Heniartes* Spinola, 1837 e *Agriocleptes* Stål, 1866 (Apiomerinae, Reduviidae, Hemiptera). Rev. brasil. Biol., Rio de Janeiro **13** : 369–380, 30 figs.

3966.—Wyniger, R. Beiträge zur Oekologie, Biologie und Zucht einiger europäischer Tabaniden. Acta trop., Basle **10** : 310–347, 19 figs. [Dipt.]

Wyniger, R. *see* Reiff & Wyniger.

Xavier, S. H. *see* Silveira Guedes, Freitas & Xavier.

3967.—Xeros, N. Development of intranuclear inclusions in virus-diseased cells of Lepidopterous larvae. Nature, London **172** : 309–310.

3968.—Xeros, N. Origin and fate of the virus bundles in nuclear polyhedroses. Nature, London **172** : 548–549, 1 fig.

Xeros, N. *see* Smith, Wyckoff & Xeros ; Smith & Xeros.

Yagi, H. *see* Ogaki & Yagi.

3969.—[Yakhontov, V. V. & **Stovichek,** L. N.] Data on thrips injurious to the seeds of dandelion plants in Uzbekistan. [In Russian.] Zool. Zhurn., Moscow **32** : 903–914, 7 figs. [Thysanopt.]

Yamaguti, S. *see* LaCasse & Yamaguti.

3970.—Yamamoto, H. Morphology of the male genital organ of *Argyronome laodice japonica* Ménétriès (Lepidoptera, Nymphalidae). Sieboldia, Fukuoka **1** : 161–168, 4 pls.

Yamamoto, S. *see* Yasumatsu & Yamamoto.

3971.—Yamao, T. Ueber die Lateralität der Brustbeine des Seidenspinners, *Bombyx mori*. [In Japanese with German summary.] Zool. Mag., Tokyo **53** 1941 : 203–211, 1 pl. 3 figs. [Lep.]

Yamasita, Z. *see* Katô, Matsuda & Yamasita.

3972.—Yanagishima, S. On the effect of population density of larvae on the coaction between wild type and mutant " white " of *Drosophila melanogaster*. I. General description. [In Japanese with English summary.] Zool. Mag., Tokyo **62** : 228–232, 2 figs. [Dipt.]

3973.—Yanai, T. Morphology and histology of mid-intestine of *Scotinophora lurida*, a Hemipteran. [In Japanese.] Zool. Mag., Tokyo **59** 1950 : 150–152, 3 figs.

3974.—Yasumatsu, K. Sphecoidea of Micronesia. 4. Revision of the genus *Pison* Spinola. Part 1 (Hymenoptera : Sphecidae). J. Fac. Agric. Kyushu Univ., Fukuoka **10** : 133–150, 2 figs.

3975.—Yasumatsu, K. A new Eulophid parasite of *Adris tyrannus* Guénée from Japan (Hym., Eulophidae). J. Fac. Agric. Kyushu Univ., Fukuoka **10** : 163–168.

3976.—Yasumatsu, K. Some considerations on the reproductive capacity of a Kyushu race of *Anicetus ceroplastis* Ishii, an effective parasite of *Ceroplastes rubens* Maskell in Japan. [In Japanese with English summary.] Sci. Bull. Fac. Agric. Kyushu **14** : 7–15. [Hym., Hem.]

3977.—Yasumatsu, K. & **Hirashima,** Y. Two new species of the genus *Heriades* from the North Pacific islands (Hym., Megachilidae). Insecta matsum., Sapporo **18** 1952 : 38–40.

3978.—Yasumatsu, K. & **Yamamoto,** S. Comparisons on the reproductive capacity among *Anicetus ceroplastis* Ishii reared from *Ceroplastes rubens* Maskell feeding on different host plants. [In Japanese with English summary.] Sci. Bull. Fac. Agric. Kyushu **14** : 27–33. [Hym., Hem.]

3979.—Yates, W. W. Notes on the ecology of *Culiseta* mosquitoes found in the Pacific Northwest. Mosquito News, Albany, N.Y. **13** : 229–232. [Dipt.]

3980.—Yepez, F. F. Contribución al estudio de las moscas de las frutas del género *Anastrepha* Schiner (Diptera : Trypetidae) de Venezuela. An. Univ. Venezuela, Caracas **33** : 109–146, 12 figs.

3981.—Yokoo, T. & **Hattori,** T. Some notes on the body temperature of *Bombyx mori* L. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **17** : 161–169. [Lep.]

3982.—Yokota, E. & **Asahina,** S. On a gynandromorph of *Crocothemis servilia* Drury (Odon., Libellulidae). Entomologist, London **86** : 167–169, 5 figs.

3983.—Yokoyama, T. Vital staining of epidermal cells of silkworm in relation to the marking of individuals. [In Japanese with English summary.] Oyo-Dobuts.-Zasshi, Tokyo **16** 1951 : 129–131, 1 fig. [Lep.]

3984.—Yokoyama, T. & Keister, M. L. Effects of small environmental changes on developing silkworm eggs. Ann. ent. Soc. Amer., Columbus **46** : 218–220. [Lep.]

3985.—Yoshimeki, M. On the dimensional characters of the rice hoppers, *Oxya japonica* Willemse and *Oxya velox* Fabricius. [In Japanese with English summary.] Ecol. Rev., Sendai **13** 1952 : 87–94, 17 figs. [Orth.]

3986.—Yoshimeki, M., Katô, M. & Tomita, G. Serological studies of some ecological strains of the rice stem borer, *Chilo simplex* Butler. Sci. Rep. Tôhoku Univ., Sendai (4) **19** 1952 : 335–338, 1 fig. [Lep.]

Yoshimoto, C. M. *see* Evans, Lin & Yoshimoto.

Yoshitake, N. *see* Aruga, Yoshitake & Nagashima.

3987.—Yosii, N. & Nakao, S. The effect of light upon the flight activity of honeybees, *Apis mellifera*. [In Japanese with English summary.] Sieboldia, Fukuoka **1** 1952 : 71–81, 4 figs. [Hym.]

3988.—Yosii, R. Einige japanische Collembolen, die von den Quellen und Brunnen erbeutet waren. Annot. zool. jap., Tokyo **26** : 67–72, 3 figs.

3989.—Yosii, R. Wiederbeschreibung eines Bücherwurms, *Ctenolepisma villosa*. [In Japanese with German summary.] Zool. Mag., Tokyo **51** 1939 : 677–682, 1 pl. [Thysanura.]

Yost, jr., H. T. *see* Ives, Fenton, Yost & Levine.

3990.—Young, jr., D. A. Empoascan leafhoppers of the *solana* group with descriptions of two new species (Homoptera, Cicadellidae). J. Agric. Univ. P.R., Rio Piedras **37** : 151–160, 2 pls.

Young, jr., D. A. *see* Beirne & Young.

3991.—Young, F. N. The water beetles of the Bahama Islands, British West Indies (Coleoptera : Dytiscidae, Gyrinidae, Hydrochidae, Hydrophilidae). Amer. Mus. Novit., New York no. 1616 : 1–20.

3992.—Young, F. N. Two new species of *Matus*, with a key to the known species and subspecies of the genus (Coleoptera : Dytiscidae). Ann. ent. Soc. Amer., Columbus **46** : 49–55, 1 pl.

3993.—Young, F. N. A new species of *Bidessus* from southern Michigan (Coleoptera : Dytiscidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48**: 111–112.

3994.—Young, F. N. A new *Hydroporus* from Michigan, with notes on other members of the *Hydroporus vilis* group (Coleoptera : Dytiscidae). Bull. Brooklyn ent. Soc., Lancaster, Pa. **48** : 116–122, 1 pl.

3995.—Young, F. N. The types of Hydradephaga in the W. S. Blatchley collection, with generic reassignments and synonymies (Coleoptera : Noteridae, Dytiscidae, Gyrinidae, Haliplidae). Canad. Ent., Ottawa **85** : 113–119.

3996.—Young, F. N. A new *Laccophilus* from Florida, with notes on other species of the genus (Coleoptera : Dytiscidae). Florida Ent., Gainesville **36** : 31–34, 3 figs.

3997.—Young, F. N. The approach to taxonomic problems. Proc. Indiana Acad. Sci., Indianapolis **62** : 172–175.

3998.—Young, F. N. Two new species of water beetles from Florida (Coleoptera : Dytiscidae). Psyche, Cambridge, Mass. **60** : 21–27, 2 figs.

3999.—Young, J. H. Embryology of the mouthparts of Anoplura. Microentomology, Stanford Univ. **18** : 85–133, 69 figs.

4000.—Yuasa, H. & Isitani, H. A new species of the paddy-stem maggot from Nippon. [In Japanese with English summary.] Zool. Mag., Tokyo **51** 1939 : 447–450, 9 figs. [Dipt.]

4001.—Yushima, T. & Chino, H. Acetylcholine and cholinesterase in the rice stem borer, *Chilo simplex* Butl. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **9** : 52–58, 5 figs. [Lep.]

4002.—Yushima, T. & Ishii, S. Hydrogen ion concentration and digestive enzymes in the digestive tract of rice stem borer. [In Japanese with English summary.] Oyo-Kontyu, Tokyo **8** 1952 : 51–55. [Lep.]

Yushima, T. *see* Matsumoto & Yushima ; Matsumoto, Yushima & Santa.

4003.—Zaazou, H. T. The effect of previous infestation on host selection. Bull. Soc. Fouad 1er Ent., Cairo **37** : 479–485.

4004.—Zahradník, J. Revision der čechoslovakischen Arten der Schildläuse aus der Unterfamilie der Diaspidinae. Acta ent. Mus. nat. Pragae **27** (1951) 1952 no. 387 : 89–200, 43 pls. [Hem.]

4005.—Zahradník, J. Note sur la biologie des larves d'*Hyperaspis campestris* var. *concolor* Suffr., prédatrice des Coccides en Tchécoslovaquie. [In Czech with French summary.] Zool. ent. Listy, Brno **1** 1952 : 181–184, 6 figs. [Col., Hem.]

Zanardini, I. F. *see* Freire-Maia, Zanardini & Freire-Maia.

Zangheri, P. *see* Consani & Zangheri.

4006.—Zebe, E. Ueber den respiratorischen Quotienten der Lepidopteren. Naturwissenschaften, Berlin **40** : 298.

Zeid *see* Mahmoud Zeid.

4007.—Zelinka, M. Note on the mayflies of the High Tatra with the description of *Rhithrogena tatrica* n. sp. [In Czech with English summary.] Publ. Fac. Sci. Univ. Masaryk, Brno no. 348 : 157–167, 4 figs. [Ephem.]

4008.—[Zhivoyinovit', S.] La faune des insectes du domaine forestier de Majdanpek (monographie entomologique). [In Serbian with French summary.] Monogr. Acad. serbe Sci., Belgrade **160** Inst. Ecol. Biogéogr. no. 2 1950 vii & 262 pp. 21 pls. 1 map.

4009.—Ziegler, J. B. Notes on the life history of *Incisalia augustinus* and a new host plant record (Lycaenidae). Lepid. News, New Haven **7** : 33–35.

4010.—Zikán, J. F. Polymorphismus und Ethologie der sozialen Faltenwespen (Vespidae Diploptera). Acta zool. lilloana, Tucuman **11** 1951 : 5–51, 2 pls. 16 figs. [Hym.]

4011.—Zinkernagel, R. & Müller, E. Kreuzungsversuche mit *Attagenus piceus* Oliv. (Dermestidae). Verh. schweiz. naturf. Ges., Berne **132** (1952) : 156. [Col.]

4012.—Zirngiebl, L. Ein bilateraler Zwitter der Blattwespe *Tenthredo atra* L. Jh. Ver. vaterl. Naturk. Württemb., Stuttgart **107** (1951) 1952 : 89–94, 1 fig. [Hym.]

4013.—Zirngiebl, L. Tenthredinoiden aus der Zoologischen Staatssammlung in München. Mitt. münch. ent. Ges., Munich. **43** : 234–238. [Hym.]

4014.—Zirngiebl, L. Nordische Nematiden in den bayerischen Alpen (Hym. Tenthr.). NachrBl. bayer. Ent., Munich **2** : 30–32, 36–37.

4015.—Zocchi, R. Contributi alla conoscenza degli insetti delle piante forestali. II. Note biologiche sull' *Evetria buoliana* Schiff. (Lepidoptera Tortricidae). Redia, Florence **37** 1952 : 345–369, 13 figs.

4016.—Zopp, J. Anzuchtverfahren bei *Gastropacha quercifolia* L. Z. wien. ent. Ges., Vienna **38** : 99–101. [Lep.]

4017.—Zopp, J. Die ersten Stände von *Automeris* (*Hyperchiria*) *naranja* Schaus (=*aurantiaca* Weym., nec *umbrosa* Weym. et *ater* Conte). Z. wien. ent. Ges., Vienna **38** : 245–247, 1 pl. [Lep.]

Zuber-Vogeli, M. *see* Tuzet & Zuber-Vogeli.

4018.—Žuković, M. Morphology and biology of the stages of *Hypoderma bovis* (de Geer, 1776) and *Hypoderma lineatum* (de Villers, 1789) under the skin. [In Croat with English and German summaries.] Vet. Arhiv, Zagreb **22** 1952 : 194–202. [Dipt.]

4019.—Zumpt, F. Resultados de um reconhecimento zoológico no Alto Limpopo efectuado pelos Drs. F. Zumpt e J.A.T. Santos Dias. II. Two new *Sarcophaga* species from Moçam bique (Diptera: Calliphoridae). Moçambique, Lourenço Marques no. 70 1952: 3–8, 2 figs.

4020.—Zumpt, F. Some hitherto undescribed higher flies from southern Africa (Diptera: Calliphoridae). Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 3: 69–85, 2 pls.

4021.—Zumpt, F. Why worship types? Rev. ecuator. Ent. Parasit., Guayaquil **1** no. 3: 87–89.

4022.—Zumpt, F. A preliminary contribution to the taxonomy of the genera *Hemigymnochaeta* and *Tricyclea* (Diptera: Calliphoridae). Trans. R. ent. Soc. London **104**: 481–520, 21 figs.

4023.—Zumpt, F. & Paterson, H. E. Studies on the family Gasterophilidae, with keys to the adults and maggots. J. ent. Soc. S. Afr., Pretoria **16**: 59–72, 17 figs. [Dipt.]

4024.—Zumpt, K. Fliegenmaden als echte Termitengäste. Naturwissenschaften, Berlin **40**: 37. [Dipt., Isopt.]

II.—SUBJECT INDEX.

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HISTORICAL.

Some auction sales of the 'nineties, Ent. Rec. **65**: 285–287, 315–319;

ANDER, Entomological Society of Lund, 1903–1953, Opusc. ent. **18** : 3–12, 6 photos ; BAGWELL-PUREFOY, experiments carried out at East Farleigh, Kent, in 1915 and subsequent years on life history of *Maculinea arion* (Lep., Lycaen.), **142**; ESSIG, workers on aphids, **1020**; GOIDANICH, entomology in Italy, Boll. Soc. ent. ital. **82** : 82–85 ; GÜNTHER, silk culture, **1355**; HOFMEIER, locusts as plague carriers in Conradus Lycosthenes (1557) "Prodigiorum ac Ostentorum Chronicon", **1548**; HORA, lac-insect in the Atharva Veda, **1568**; LIU, cicadas in Chinese culture (including silver-fish), **2189**; silkworm and Chinese culture, **2190**; MAHDIHASSAN, is Indragopa of Brihadaranyaka Upanishad a cochineal insect ? **2261**; MILLER, review of New Zealand entomology, **2406**; NAST, entomology in Poland, Bull. ent. Pologne **21** 1952 : 162–177 ; RIEGER, Coleoptera collecting areas in Munich, NachrBl. bayer. Ent. **2** : 1–4.

BIOGRAPHY.

BANKS, by Darlington, Ann. ent. Soc. Amer. **46** : 173 ; by Sachtleben, Beitr. Ent. **3** : 354–355 ; BERG, J. econ. Ent. **46** : 722 ; BLAIR, by Sachtleben, Beitr. Ent. **3** : 222 ; Ent. mon. Mag. **89** : 25–29, 1 photo ; by Britton, Entomologist **86** : 25 ; by H[awkins], Ent. Rec. **65** : 128 ; by Hobby, J. Soc. Brit. Ent. **4** : 126–127, 1 photo ; by Riley, Nature **171** : 152–153 ; BLAUVELT, J. econ. Ent. **46** : 722 ; BOLDT, by Lempke, Ent. Ber. **14** : 301–302 ; BÖRNER, by Speyer, Anz. Schädlingsk. **26** : 173, 1 photo ; by Sachtleben, Beitr. Ent. **3** : 353–354 ; by Roepke, Ent. Ber. **14** : 381–382 ; by Doncaster, Ent. mon. Mag. **89** : 287 ; by Hottes, Ent. News **64** : 261–262 ; Nachr. naturw. Mus. Aschaffenburg no.40 : 85 ; by Gollmick, NachrBl. dtsch. PflSchDienst (N.F.) **7** : 141–143, 1 photo ; by Hase, Schädlingsbekämpfung **45** : 125–126 ; by Jancke, Z. angew. Ent. **35** : 131–132, 1 photo; Zool. Anz. **150** : 314 ; BURGESS, by Bourne, J. econ. Ent. **46** : 918–920, 1 photo ; CAESAR, by Baker, J. econ. Ent. **45** : 1113–1114, 1 photo ; CLEVELAND, J. econ. Ent. **46** : 538; CONSANI, Boll. Ass. romana Ent. **8** : 21 ; by Lanza, Boll. Soc. ent. ital. **83** : 49 ; COOK, by LeClerg, Ann. ent. Soc. Amer. **46** : 172 ; by Walcott, J. econ. Ent. **45** (1952) : 1112–1113 ; CORPORAAL, by van der Wiel, Tijdschr. Ent. **96** : 1–5, 1 photo ; DE COURCY FRASER, by de Worms, Entomologist **86** : 58 ; DAMMERMAN, by Roepke, Tijdschr. Ent. **96** : 9–11, 1 photo ; DODERO, by Invrea, Mem. Soc. ent. ital. **31** : 155–158, 1 photo ; DOETS, by Diakonoff, Lepid. News **7** : 24 ; DRAUDT, Beitr. Ent. **3** : 694–695 ; by Franz, Ent. Z., Frankfurt a. M. **63** : 89–90, 1 photo ; Z. wien. ent. Ges. **38** : 258 ; VAN ELDIK, by Hardonk, Ent. Ber. **14** : 389–390, 1 photo ; ESCHERICH, by Gösswald, Verh. dtsch. zool. Ges. **1952** : 568–571, 1 photo ; ESSELBAUGH, by M. T. J., Ann. ent. Soc. Amer. **46** : 173–174 ; FEDERLEY, by Hackman, Mem. Soc. Fauna Flora fenn. **28** : 128–132, 1 photo ; FERNALD, by Shepard, Ann. ent. Soc. Amer. **46** : 311–312 ; by Sachtleben, Beitr. Ent. **3** : 222–223 ; by Alexander, Ent. News **64** : 85–88, 1 photo ; by Merrill, Florida Ent. **36** : 35 ; by Alexander, J. econ. Ent. **45** (1952) : 1111–1112, 1 photo ; FISCHER VON WALDHEIM, 1771–1853, by Büttner, Beitr. Ent. **3** : 616–618 ; GARDNER, by Matheson, Nature **172** : 439 ; GEISSBÜHLER, by Aebli, Mitt. thurg. naturf. Ges. **33** 1944 : 135–137, 1 photo ; GRAVES, by E.S.A.B., Ent. Rec. **65** : 272 ; GUTIÉRREZ ALONSO, Agric. tecn., Chile **13** : 86 ; HALE CARPENTER, by N.D.R[iley], Entomologist **86** : 155–156 ; Beitr. Ent. **3** : 694 ; Indian J. Ent. **15** : 168, 274 ; by Hobby, Nature **171** : 592–593 ; HAMM, by Carpenter, Proc. Linn. Soc. Lond. **163** 1952 : 83–84 ; HARRISON, by Cockerham, J. econ. Ent. **46** : 721–722, 1 photo ; HEIKERTINGER, by Saalas, Ann. ent. fenn. **19** : 131–133, 1 photo ; Beitr. Ent. **3** : 695 ; Z. wien. ent. Ges. **38** : 258 ; HILLER, by Günther, Dtsch. ent. Z., Iris **55** 1942 : 134 ; HOWARD, by Mason & Nelson, J. econ. Ent. **46** : 721, 1 photo ; HYSLOP, by Sollers, Ann. ent. Soc. Amer. **46** : 310–311 ; by Sollers, J. econ. Ent. **46** : 920–921, 1 photo ; by Sollers, Bishopp & Leonard, Proc. ent. Soc. Wash. **55** : 153–156, 1 photo ; Beitr. Ent. **3** : 696 ; JOY, Beitr. Ent. **3** : 696 ;

by C. MacK. J., Ent. mon. Mag. **89** : 213 ; KENNEDY, by Sachtleben, Beitr. Ent. **3** : 223 ; KINEL, by Noskiewicz, Bull. ent. Pologne **20** 1951 : 3–10, 1 photo ; LARSEN, by Wolff, Ent. Medd. **26** ; 475–480, 1 photo ; LINNANIEMI, Beitr. Ent. **3** : 696–697 ; by Saalas, Ann. ent. fenn. **19** : 41–52, 1 photo ; MARCHAND, by Herbulot, Bull. Soc. ent. Fr. **58** : 137 ; MILMAN, by A[llan], Ent. Rec. **65** : 95–96 ; MUTCHLER, by Olsen and others, J. N.Y. ent. Soc. **61** : 37–42, 1 photo ; OUELLET, by Shewell, Canad. Ent. **85** : 79–80 ; PASSERINI, by Conci, Boll. Soc. ent. ital. **82** 1952 : 65 ; PHILLIPS, by Sardar Singh, Indian J. Ent. **13** 1952 : 225 ; by Hambleton, J. econ. Ent. **45** : 1124, 1 photo ; PITTIONI, Z. wien. ent. Ges. **37** 1952 : 186 ; RAMME, Beitr. Ent. **3** : 697 ; RAPP, Beitr. Ent. **3** : 697–698 ; by Liebmann, Ent. Bl. **49** : 129–130, 1 photo ; REBEL, by Günther, Dtsch. ent. Z., Iris **54** 1941 : 85–86 ; RHOADS, by P.P.C. & J.A.G.R., Ent. News **64** : 125 ; ROELOFS, by Segers, Bull. Ann. Soc. ent. Belg. **89** : 17–18 ; SANDRAS, by Berger, Lambillionea **53** p. 37 ; SARDAR MOHAN SINGH, by M.V.V., Indian J. Ent. **15** : 77–78, 1 photo ; SCHIFFERMÜLLER, by Hoffmann, suppl., **1545** ; SKALA, by Hoffmann, Z. wien. ent. Ges. **38** : 147–148, 1 photo ; SRIVASTAVA, Indian J. Ent. **15** : 274 ; VON STERNECK, by Günther, Dtsch. ent. Z., Iris **55** 1942 : 134–135 ; ŠULC, by Stehík, Acta Mus. Morav. **38** : 14–16, 1 photo ; by Vondráček, Acta Soc. zool. bohemoslov. **17** : 89–107, 1 photo ; TALBOT, by Remington, Lepid. News **7** : 24 ; TASSART, by Benson, Ent. mon. Mag. **89** : 89 ; VAN DYKE, by Tanner, Gr. Basin Nat. **13** : 29–34, 1 photo ; by Essig, Pan-Pacif. Ent. **29** : 73–88, 1 photo ; VASSEUR, by F.C., Rev. Zool. agric. appl. **52** : 73–74, 1 photo ; WALTON, by Baker & Wade, J. econ. Ent. **46** : 532–533, 1 photo ; by Wade and others, Proc. ent. Soc. Wash. **55** : 103–108, 1 fig. ; WOLFFHÜGEL, by Hase, Z. Parasitenk. **15** 1952 : I–VI.

BIBLIOGRAPHY.

Current entomological literature, **1**; DUPUIS, Guérin-Ménéville, " Atlas Voyage La Coquille " pl. xi published 5. 9. 1831 and pl. xii 29. 5. 1831 ; " Icon. Règne Anim." pl. 55 published 1831, **937**; GUIGNOT, " Hydrocanthares de France," morphological part published 1931, systematic part 1932, biological part 1933, Rev. franç. Ent. **20** : 117 ; HENNIG, list of monographs and revisions of recent insect-groups, **1484**; HERSKOWITZ, genetics of *Drosophila*, pt. 2, **1495**; HOMBERG, some unknown plates in Ernst and Engramelle's " Papillons d'Europe peints d'après nature," 1779–1793, **1559**; HOTTES, Passerini's (Giovanni not Carlo) 1857 and 1860 aphid papers compared ; Degeer's 1755 " Secondes observations, sur les pucerons du prunier, et en particulier sur leur accouplement " in Mém. Math. Phys. Vol. 2 pp. 469–473, overlooked ; Mordvilko's 1894–1895 " On the fauna and anatomy of the family Aphididae of the Visla Region " originally published in Warsaw Universitet Izviestiià, dates of publication of parts and spp., **1575**; KIRICHENKO, true Hemiptera of European USSR, **1880** ; MAA, annotated bibliography of Apidini, 2000 B.C.—1944, **2231**; MADIER, eight facsimile pages of 5th part of " Lepidopterologische Zuträge " by Hübner, **2252**; MAMET, Grandpré & Charmoy, authors of spp. of Coccoidea (Hem.) described from Mauritius, 1899, **2275** ; MÖBIUS, Lepidoptera, Saxony, 1728–1940, Dtsch. ent. Z., Iris **57** 1944 : 1–27 ; MÓCZÁR, Hungarian Hymenoptera literature 1897–1952, **2437**; NIEWIADOMSKA, Siphonaptera, Poland, **2544**; RAUTENBERG, corrections to paper by Kraatz (1875) on Jacob Sturm's " Insecten Cabinet " (1791–1792), **2882**; Happe, Andreas Friedrich, Abbildungen der Schmetterlinge aus den 3 Weltteilungen Asia, Africa und America. . . 1783–85, **2883** ; SCHIFFERMÜLLER, by Hoffmann, suppl., **1545**; SCOTT, list of published results of 1926–7 Entomological Expedition to Abyssinia, **3213**; SMART & TAYLOR, key works for identification of British fauna and flora, 2nd edn., **3312**; WEISS, author and general subject index to vols. 51–60 of J. New York ent. Soc., J. N.Y. ent. Soc. **61** : 1–35.

Works of : CONSANI, Boll. Ass. romana Ent. **8** : 21–22 ; by Lanza, Boll. Soc. ent. ital. **83** : 50 ; COR-

PORAAL, by van der Wiel, Tijdschr. Ent. **96** : 5–7 ; DAMMERMANN, by Roepke, Tijdschr. Ent. **96** : 11–12 ; DODERO, by Invrea, Mem. Soc. ent. ital. **31** : 158–159 ; ESSELBAUGH, by M.T.J., Ann. ent. Soc. Amer. **46** : 173 ; HARTMANN (1859–1932), Dtsch. ent. Z., Iris, Ergänzungsband 1943 : 9 ; KINEL, by Noskiewicz, Bull. ent. Pologne **20** 1951 : 10–11 ; KOMÁREK, by Kratochvíl, 1912–1951, Zool. ent. Listy **1** 1952 : 214–216 ; LARSEN, by Wolff, Ent. Medd. **26** : 480–481 ; MUTCHLER, by Cazier, J. N.Y. ent. Soc. **61** : 43 ; PASSERINI, by Conci, Boll. Soc. ent. ital. **82** 1952 : 65 ; RAPP, Ent. Bl. **49** : 130–132 ; REICHENSPERGER, works on ants and termites, by Gösswald, Ent. Bl. **49** : 85–89 ; ROCCI, by Taccani, Atti Soc. ital. Sci. nat. **92** : 62 ; SKALA, important works, by Hoffmann, Z. wien. ent. Ges. **38** : 148–149 ; ŠULC, by Vondráček, Acta Soc. zool. bohemoslov. **17** : 107–115 ; VAN DYKE, by Leech, Pan-Pacif. Ent. **29** : 89–97 ; VASSEUR, Rev. Zool. agric. appl. **52** : 74–75 ; ZANDER, 1897–1953, Z. angew. Ent. **34** : 615–631.

TAXONOMY.

BERIO, **292** ; COTTIER, history of Aphid classification, **730**; HEYDEMANN, races in Lepidoptera, **1503**; JAMES, an objective aid in determining generic limits, **1688**; MAYR, LINSLEY & USINGER, methods and principles of systematic zoology, **2365**; VERITY, on supposed discoveries of new butterfly species in Europe, **3698**; WARNECKE, races in Lepidoptera, **3810**; YOUNG, approach to taxonomic problems, **3997**.

NOMENCLATURE.

Documents collected for discussion at the Colloquium on Zoological Nomenclature, the meetings of the International Commission on Zoological Nomenclature and the Fourteenth International Congress of Zoology, Copenhagen, 1953, Bull. zool. Nom. **8** : 1–282, **10** : 1–513 ; BASILEWSKY, Wallengren's S. African Carabid types, **209**; DE BEAUMONT, some Dahlbom Sphegid types, **229**; BONNET, initial letter of specific names, **383**; CARNE, problem of type distribution in Australia, **575**; COOK, original repositories of Formicidae types, **719**; DUPUIS, gender of generic names derived from Greek, especially *Eurydema* (Hem., Pentat.), **936**; ERMISCH, Mordellidae, Fahraeus' S. African types, **1013**; HEINRICH, some Strobl Ichneumonid types, **1469**; HEMMING, problems awaiting decision, **1478**; HEMMING [Ed.], Copenhagen decisions on zoological nomenclature. Additions to, and modifications of, the Règles Internationales de la Nomenclature Zoologique approved and adopted by the Fourteenth International Congress of Zoology, Copenhagen, August, 1953, **1477**; KEVAN, difficulties in applying the rule of priority to supra-generic nomenclature, as illustrated by the name Pyrgomorphinae (Orth., Acrid.) and alternatives, **1851**; LE MARCHAND, **2085**; LINDROTH, Kirby's types of N. American Carabidae, **2176**; MAYR, LINSLEY & USINGER, methods and principles of systematic zoology, **2365**; SCHMITZ, Zetterstedt's Phoridae in Lund collections, **3168**; STÄRCKE, " there will never be peace in nomenclature ", Ent. Ber., Amst. **14** : 205–206 ; VARGAS & DÍAZ NÁJERA, some Simuliid types of Enderlein, **3670**; VAURIE, Bondar's types of S. American Curculionids, **3680**; VIETTE, Meyrick's Tortricoid types in Paris Museum, and additions to Tineid types, **3717**; neotype, **3722**; VILLIERS, types deposited in Paris Museum by l'Institut français d'Afrique noire, **3734**; WAGNER, fixation of Fieber and Puton types of *Sciocoris* (Hem., Pentat.), **3783**; YOUNG, types of Hydradephaga (Col.) in Blatchley's collection at Purdue Univ., **3995**; ZUMPT, types, **4021**.

COLLECTIONS.

COCKAYNE, Rothschild-Cockayne-Kettlewell Collection of Macrolep. at Tring, Ent. Rec. **65** : 97–99 ; COLAS, René Oberthür collection in Paris Museum, **688** ; HARTIG, Sardinian Microlep. in Staudinger collection, Berlin, **1438**; HOPKINS & ROTHSCHILD, Rothschild collection of fleas, I, **1566**; REHN, Nabours collection of Tetrigid (Orth.) genetic material to Academy of Natural Sciences, Philadelphia, Ent. News **64** : 239 ; ROELOFS, by Segers, Bull. Ann. Soc. ent. Belg. **89** : 18–31 ; ROONWAL, MATHUR, R. N., BHASIN,

SINGH, PANT, CHANDRA, KATIYAR & MATHUR, R. K., catalogue of collections at Forest Research Institute, Dehra Dun, **3021**; WEISE, R. Heinemann's Col. collection in Naturh. Mus. Braunschweig, Ent. Bl. **49** : 39 ; WENZEL, Kohlman collection of Baltic Amber insects, **3848**; WILLIAMS, Castle Russell collection of Rhopalocera at Tring, England, Ent. Rec. **65** : 97.

TECHNIQUE : COLLECTING AND PRESERVATION.

ANSARI, lice, **80**; D'ASSIS-FONSECA, pinning & setting flies, **110**; BONNE-WEPSTER & SWELLENGREBEL, Anopheline mosquitos, **384**; BOURGOGNE, at light, **408**; mercury-vapour lamps, **409**; BRYK, Lep., spreading wings, **509**; BURTON, mounting mosquito eggs, larvae, pupae and adults on slides, **538**; EISA & SOLIMAN, trap-olfactometer for cockroaches, **978**; DA FONSECA, mounting *Coccus hesperidum* (Hem.), **1103**; FORSTER & WOHLFAHRT, Lep., **1116**; FREEMAN & DE MEILLON, Simuliidae (Dipt.), **1156**; HARTWIG, Thysanoptera, making whole mounts, **1440**; HOCKING, simplified technique for plastic embedding, **1532**; IVES, cave flies, **1669**; DE JONG, mould in collections, **1751**; KELLEN, quantitative sampler for aquatic insects, **1828**; KERSHAW, block setting method versus boards, Ent. Rec. **65** : 22, 8 figs. ; KHAN, collecting Tabanid larvae (Dipt.), **1857**; KLOCK & BIDLINGMAYER, adult mosquito sampler, **1892**; KNOWLTON & WRAY, shipping insects in honey-sample tubes, Bull. Brooklyn ent. Soc. **48** : 9 ; LACASSE & YAMAGUTI, mosquitos of Japan and Korea, survey methods, **2016**; LIEM SWIE LIONG, trapping termites, **2165**; LONG, *Thanatophilus americana* (Col., Silph.), **2195**; MACFAYDEN, extraction of small soil arthropods, **2239**; MARSON, dissection and mounting of parts of honeybee, **2317**; MILES, capture and marking of migrant insects, **2404**; MORRISON, Berlese method of collecting small insects from leafmould, soil, moss, etc., **2470**; MULHERN, new "American" model mosquito light trap, **2489**; OAKLAND, determining sample size, **2582**; PALM, tree-inhabiting Col., **2650**; PETERSON, manual of entomological techniques, 7th edn., **2739**; RAMAKRISHNAN & RATHNASWAMY, mounting sand-flies (Dipt., Psychod.), **2869**; RICHARDSON, fossils, Pennsylvania, **2944**; RISTICH & LOCKARD, aspirator for sampling large populations, **2970**; ROBINSON, mercury-vapour lamp technicalities, **2992**; ROLSTON & MINER, new pinning unit, **3014**; RYCKMAN & DEEM, label for microscope slides, **3068**; SEVASTOPULO, "papering" insects, **3242**; STRICKLAND, polythene-stoppered vials for storing insects in alcohol, **3429**; THOMPSON, ectoparasites, **3523**; VUKASOVIT', *Anopheles maculipennis* (Dipt., Culic.), small tubes for catching females to determine varieties, **3766**; WEEMS, Syrphids (Dipt.), **3832**; WILLIAMS, *Drosophila*, trap for wet weather collecting, **3879**; WOLFINSOHN, *Musca domestica vicina* (Dipt.), trapping, **3920**; WOODWARD, **3941**; WORTH, construction and use of simplified window trap, **3944**.

TECHNIQUE : BREEDING AND EXPERIMENTAL.

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GEOGRAPHY OR FAUNISTIC.

In this section references are given to all species recorded from Arctic or characteristic island faunas, but in other divisions reference is made only to papers dealing with monographs or revisions or giving other information of faunistic value. Small local lists and records from limited areas are not usually included.

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Diptera. — D'ASSIS FONSECA, *Delia tarsifimbria* (Musc.), in Glamorgan, J. Soc. Brit. Ent. **4** : 124; BUXTON & BARNES, Cecidomyiids, new to list, **546**; CLARK, *Angiometopa ruralis* (Calliph.), new to fauna, Entomologist **86** : 134; COE, Syrphidae, **683**; COLLIN, *Scaptomyza* (Drosoph.), key, **698**; Lonchaeidae, revision, **701**; *Clusiaria apicalis*, new to fauna, J. Soc. Brit. Ent. **4** : 139–140; some additional Anthomyiidae, **699**; MATTINGLY, *Culex* (*Neoculex*) *territans* to be substituted for *apicalis* in Brit. list, **2354**; PARMENTER, Agromyzidae, additions to list, **2680**; *Agathomyia falleni* (Platypez.), new to fauna, J. Soc. Brit. Ent. **4** : 122; SPENCER, Agromyzidae, confirmed identifications, additions to list, **3368**; THOMPSON, *Crataerina pallida*, *Stenepteryx hirundinis* (Hippobosc.), distribution, **3523**.

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callae (Curc.), new to Germany, **519**; DEPTA, Czechoslovakia, **835**; DORN, *Amara majuscula*, *littorea* (Carab.), new to Germany, **887**; ERMISCH, Vogtland, suppl., **1014**; GAUCKLER, *Chrysochloa* (Chrys.), N. Bavaria, distribution, **1211**; GOLJAN, *Onthophagus ovatus* group (Copr.), Poland, **1270**; HEYROVSKÝ, Kožuf-Planina, Yugoslavia, **1505**; HORION, Malacodermata, Sternoxia (Elateridae—Throscidae), **1571**; ILLIES, *Lathelmis* (Dryop.), Germany, revision, **1636**; JEDLIČKA, *Aphaonus* (Carab.), Balkans, revised key, **1729**; KANTARDZHIEVA-MINKOVA, Melolonthinae, Bulgaria, **1792**; KRAHMER in SCHMIDT & KRAHMER, *Strangalia attenuata* (Ceramb.), W. Germany, distribution, **3161**; LINDER, new to Switzerland, III, **2171**; MAGIS, Malacodermata, Belgium, records, **2256**; MAZUROWA, Halticids, Cracow, **2367**; MEDVEDEV, Scarabaeid larvae, USSR, **2370**; Melolonthinae, pt. 2, USSR, **2371**; RIEHTER, Buprestids, USSR, **2952**; ROUBAL, Chrysomelidae, Lariidae, Anthribidae, Curculionidae, Ipidae, Platypodidae, Czechoslovakia, E. Carpathians, **3032**; new to Bohemia, **3033**; *Agriotes gallicus* (Elat.), *Chrysobothris solieri* subsp. *igniventris* (Bupr.), Bohemia, distribution, **3034**; STARK, Scolytids, USSR, **3385**; TESAŘ, *Onthophagus lucidus* (Copr.), *Aphodius* spp., new to Czechoslovakia, **3505**; *Onthophagus* (Copr.), Czechoslovakia, revision, **3506**.

Hymenoptera. — BAJÁRI, Sapygidae, Tiphiidae, Scoliidae, Hungary and neighbouring regions, catalogues, **144**; DE BEAUMONT, *Olgia* (Spheg.), Balkans, key, **230**; BISCHOFF, *Ibalia jakovlewi* (Cynip.), new to Germany, **334**; BLÜTHGEN, Vespids, Switzerland, corrections and additions, **355**; ERDŐS, Chalcidoidea, Hungary, **1007**; GŁOWACKI, environs of Warsaw, **1259**; some Ophioninae (Ichn.), Poland, **1260**; HEINRICH, Ichneumonidae, Styria, **1467**; HÖLZEL, ants, Carinthia, keys, **1558**; LECLERCQ, Aculeata, Belgium, notes, **2068**; Ichneumonidae (key to *Protichneumon*), Belgium & neighbouring countries, **2069**; Proctotrupoidea, Belgium, new records, **2071**; MÓCZÁR, *Cryptocheilus* (Pomp.), Middle Danubian Basin and Carpathians, key, **2438**; *Bombus* (Apid.), Hungary and neighbouring regions, keys, faunistic catalogue, **2439**, **2440**; NIKOL'SKAYA, Chalcidoidea, USSR, **2549**; NOSKIEWICZ & CHUDOBA, Ichneumonidae, Poland, suppl., **2567**; PISARSKI, ants, Kasimierz, Poland, **2784**; RITTER, *Anergates atratulus* (Form.), in Austria. Ent. NachrBl. **5** : 50; SADIL, *Myrmica* (Form.), Czechoslovakia, revision, **3084**; WOLF, parasitic, Lahn-Dill-Sieg area, Germany, **3916**; ZIRNGIEBL, *Amauronematus alpicola* (Tenthr.), new to Germany, **4013**; *Lygaeonematus coactulus*, *Euura* sp. (Tenthr.), in Bavarian Alps, **4014**.

Lepidoptera. — ADAMCZEWSKI, Poland, suppl. II, **18**; ALBERTI, Zamosc, S.E. Poland, **37**; AUBERT, Macrolep., Switzerland, little known spp., **117**; BERGMANN, Macrolep., Centr. Germany, II & III, **288**; BETZ, *Boloria aquilonaris*, *Argynnis aphirape* (Nymph.), Belgium, new records, Lambillionea **53** : 48; BŁESZYŃSKI, *Crambus maculalis* (Pyral.), Polish Tatra Mts., **342**; Heterocera, new to Poland, **343**; BRANDT, Germany, I, **440**; DE BROS & THOMANN, Bergell Valley, Graubünden, Switzerland, **476**; BRŮČKOVÁ, *Erannis* (Geom.), Bohemian spp. and abb., **498**; DANIEL & WOLFSBERGER, Upper Inn Valley, **771**; ERNST, *Anomogyna rhaetica* (Agrot.), new to Lower Austria, Z. wien. ent. Ges. **37** 1952 : 185; FIEBIG, Macrolep., Bad Essen and Essener Berg, **1079**; FOLTIN, Mühlviertel, Austria, additions, **1102**; FORSTER & WOHLFAHRT, **1116**; GALVAGNI, W. Alps, Austria, suppl., **1205**; GERASIMOV, larvae, USSR, I, **1226**; GOZMÁNY, Microlep., Retyezát Range, Rumania, **1290**; HACKRAY, *Erebia ligea* (Satyr.), in Belgium, **1374**; HOLIK & SHELJUZHKO, *Zygaena*, E. Europe, distribution, **1554**; KAUFFMANN, *Pyrgus alveus accreta* (Hesp.), new to Germany, **1815**; KOMÁREK & TYKAČ, atlas of Centr. European spp., **1934**; KOSTROWICKI, valley of lower Nida, Poland, **1949**; KOVÁCS, Macrolep., Hungary, distribution, **1952**; KUSDAS, Ennsdorf area, Austria, **1989**; LHOMME, Microlep., Belgium, catalogue, **2151**; MOUCHA, *Pandoriana maja* (Nymph.), distribution, Centr.

Europe, **2474**; *Pieris mannii*, distribution, **2476**; PATOČKA, Waagtal, Czechoslovakia, **2701**; PEKARSKY, *Parnassius apollo*, Carpathians, criticism of Issekutz's revision, **2717**; REISSER, Lower Austria, additions, **2915**; SCHAWERDA, Vorarlberg and Tyrol, **3130**; SCHMIDLIN, *Alispa angustella* (Pyral.), Switzerland, distribution, **3157**; SCHWINGENSCHUSS, St. Peter i. d. Au area, Lower Austria, **3210**; SIEDER, *Solenobia* (Psych.), list of spp., **3287**; STARKE, Oberlausitz, Saxony, 2nd suppl., **3386**; TYKAČ, key to Centr. European spp., **3589**; WARNECKE, *Derthisa trimacula* (Agrot.), Germany, distribution, **3808**; extinct Macrolep., Germany, **3813**; *Phytometra consona* (Agrot.), distribution, **3814**; *Larentia olivata* (Geom.), Schleswig-Holstein, distribution, **3815**; WITZMANN, Macrolep., Salzburg, **3911**; WOLFSBERGER, *Biston betularia* ff. *carbonaria*, *insularia* (Geom.), Alps, distribution, **3927**; Macrolep., S. Bavaria, **3929**; *Harmodia tephroleuca* (Agrot.), *Anaitis simpliciata* (Geom.), E. Alps, distribution, NachrBl. bayer. Ent. **2**: 58–60; WÖRZ, Microlep., Würtemberg, **3946**.

Neuroptera. — HANDSCHIN & EGLIN, *Megistopus flavicornis*, new to Switzerland, **1397**.

Diptera. — COLLART, *Hormopeza obliterata* (Empid.), in Belgium, **695**; GOETGHEBUER, Ceratopogonidae, Chironomidae, Belgium, contribution to catalogue, **1264**; GULIČKA, Blepharoceridae, Czechoslovakia, **1350**; GUTSEVICH, *Culicoides* (Ceratop.), forest zone, USSR, **1364**; KETSKAROSKA, *Phlebotomus* (Psychod.), Skoplje area, Yugoslovia, **1837**; KRAMÁŘ, *Anopheles plumbeus* (Culic.), new to Czechoslovakia, **1955**; *Culex torrentium*, *Aëdes pullatus* (Culic.), new to Czechoslovakia, **1956**; KRAMÁŘ, WEISER & ROSICKÝ, Culicids, Slovakia, **1957**; LECLERCQ, la Heid des Gattes, Aywaille, Belgium, **2074**; MOUCHA, Asilids, Czechoslovakia, distribution, **2477**; TOLLET, Keroplatinae (Mycetoph.), Belgium, **3554**; TROJANOWA, Syrphids, Warsaw district, list, new records, **3573**.

Hemiptera. — BACHMANN, Diaspidinae (Cocc.), Yugoslavia, **136**; BATOR, Tingidae, N. Tyrol, list, key, **216**; BORKHSENIUS, *Lecanopsis* (Cocc.), USSR, key, **389**; DRUET & DUVIGNEAUD, *Copium cornutum*, *teucrii* (Tingid.), in Belgium, **917**; HALÁSZFY, Heteroptera, Hungary, I, **1386**; KIRICHENKO, Heteroptera, European USSR, **1880**; KORMILEV, Heteroptera, Yugoslavia, III, **1941**; PAŠEK, Lachninae (Aphid.), **2685**, **2686**; SCHMUTTERER, Lachnidae (Aphid.), Bavaria, **3173**; SHAPOSHNIKOV, dendrophilous Aphids, steppe and desert zones of Ural region, **3247**; STEHLÍK, Heteroptera, High Jeseník, Czechoslovakia, **3398**; STEHLÍK & HOBERLANDT, Heteroptera, Czechoslovakia, new records, **3399**; STICHEL, Heteroptera, Hammelburg region, **3415**; WAGNER, *Tuponia* (Mirid.), key, **3771**; *Deraeocoris ventralis* (Mirid.), in Germany, **3776**; ZAHRADNÍK, Diaspidinae (Cocc.), Czechoslovakia, revision, **4004**.

Thysanoptera. — PELIKÁN, Czechoslovakia, list, **2721**.

Mallophaga. — TULESHKOV, Bulgaria, **3582**.

Psocoptera. — DRENSKI, Bulgaria, distribution, **914**.

Plecoptera. — ILLIES, *Leuctra aurita*, *signifera*, *Protonemura brevistyla*, new to Germany, **1634**.

Ephemeroptera. — ILLIES, *Baetis buceratus*, new to Germany, **1634**; MIKULSKI, Poland, **2402**; ŽELINKA, High Tatra, **4007**.

Odonata. — SCHIEMENZ, rare spp., Germany, distribution, **3150**.

Orthoptera. — GOETGHEBUER, Belgium, revised catalogue, **1263**; GÖRTLER, *Omocestus haemorrhoidalis*, *Oedipoda coerulescens* var. *sulphurescens* (Acrid.), new to Silesia, **1276**; HANDSCHIN & EGLIN, *Gryllomorpha ulcensis* (Gryll.), new to Switzerland, **1397**; KAPUŚCIŃSKI, *Tachycines asynamorus* (Gryllacr.), distribution in Poland, **1796**; KÜHLHORN, S. Germany, **1971**; MAŘAN, *Acrida hungarica*, *Oedaleus decorus*, *Myrmeleotettix antennatus*, *Calliptamus berbarus parvus* (Acrid.), distribution in Czechoslovakia, **2297**; MISHCHENKO, Catantopinae (Acrid.), USSR, **2417**; STEVANOVIT', Acridids, Tettigoniids, Mt. Golija, S.W. Serbia, **3410**.

Collembola. — GISIN, Switzerland, **1254**.

Thysanura. — JANETSCHEK, *Lepismachilis*, key ; *L. y-signata*, in Germany, **1697**; some Machilidae, Germany, **1698**.

SOUTH EUROPE.

Insecta.—CASTELLANI, Italy, **597, 599, 601**.

Coleoptera. — BERTRAND, *Haliplus lapponum*, Pyrenees, new records, **301**; BRIVIO, *Necrophorus germanicus* (Silph.), Italy, new records, **470**; COBOS, Buprestids, new to Spain, **672, 674**; *Julodis* (Bupr.), Spain, revision, **675**; COIFFAIT, Staphylinids, new to Spain, **687**; ESPAÑOL COLL, *Colpotus* (Tenebr.), W. Mediterranean, revision, **1018**; FAILLA, Italy, records, **1041**; FIORI, *Seminolus* (Byrrh.), Italy, revision, **1088**;FOCARILE, Carabidae, N. Italy, list, **1100**; GERINI, Buprestids, new to Italy, **1228**; JOLIVET, Chrysomeloidea, Balearic Is., **1740**; LUNA DE CARVALHO, Strepsiptera, Portugal, III, **2224**; SCHEERPELTZ, *Leptusa* (*Rhombopisalia* subgen.n.) (Staph.), N. Italy, key, **3143**; TAMANINI, *Orotrechus* (Carab.), Veneto-Trentine pre-Alps, **3490**.

Hymenoptera. — BLÜTHGEN, wasps, Portugal, Spain, list, **353**; CONSANI, Formicidae, Apulia, Tremiti Is., Italy, **712**; CONSANI & ZANGHERI, Formicids, Romagna, Italy, **713**; GIORDANI SOIKA, Vespidae, Adriatic region, **1251**; GUIGLIA, Mt. Pollino, S. Italy, **1341**; *Oryssus henschii* (Tenthr.), new to Italy, **1342**; *Oryssus unicolor* (Tenthr.), new to Sicily, Boll. Soc. ent. ital. **82** 1952 : 34 ; INVREA, *Myrmosa*, Italy, revision, **1646**; MÓCZÁR, some Pompilidae, Italy, **2436**; PITTIONI, Apoidea, Apulia, Italy, 1948, new records, **2786**.

Lepidoptera. — AGENJO, *Crambus chrysonuchellus* (Pyral.), new to Spain, **22**; *Allophyes alfaroi* (Agrot.), in Cataluña, **24**; some Geometridae, Spain, **25**; DE LESSE, *Erebia hispania*, *cassioides* (Satyr.), Spain, distribution, **2116**; MOUCHA, *Pandoriana maja* (Nymph.), S.E. Europe, distribution, **2474**; STORACE, some Lycaenids, Italy, **3422**; VERITY, Nymphalina (Satyridae), Italy, revision, **3697**.

Trichoptera. — MORETTI, Marche, Umbria, Abruzzi, Italy, **2459**.

Diptera. — BERTRAND, Chironomids, Pyrenees, new records, **300**; MANNHEIMS, Tipulidae, Italy, list, **2287**; RIVOSECCHI, Stomoxydinae (Musc.), Italy, **2975, 2976**; ROBERTI, *Mayetiola* (Cecid.), Italy, revision, **2988**; SACCÀ & RIVOSECCHI, *Sarcophaga*, Italy, distribution and list of some spp., **3080**; VENTURI, *Metopia* (Sarcoph.), Italy, revision, **3693**.

Hemiptera. — CASTELLANI, Homoptera, Italy, **600**; LUPO, Coccidae, Italy, revision, VII, VIII, **2225**; MANCINI, Italy, **2276, 2277**; PISSARRO, Heteroptera, Algarve, Portugal, **2785**; WAGNER, Italy, **3771**.

Thysanoptera. — MELIS, *Thrips*, Italy, revision, **2375**.

Psocoptera. — BAETA NEVES, new to Portugal, **141**; CONCI & FRANCESCHI, *Lepinotus reticulatus*, *Liposcelis mendax*, new to Italy, **707**.

Plecoptera. — AUBERT, Calabria, Italy, **114**.

Ephemeroptera. — AUBERT, Calabria, Italy, **114**; BIANCHERI, Italy, list, **315**; GRANDI, Ecdyonuridae, Italy, **1298**.

Odonata. — CAPRA, Lake Viverone, Piedmont, list, **569**; CASTELLANI, Italy, Sardinia, **598**; CONSIGLIO, S. Italy, Abruzzi, **714**.

Orthoptera. — BACCETTI, Elba, **134**.

Collembola. — DELAMARE - DEBOUTTEVILLE, cavernicolous spp. Apulia, Italy, list ; new records, **806**.

MEDITERRANEAN ISLANDS.

Coleoptera.—GERINI, *Melanophila picta decastigma* ab. n. (Bupr.), Sardinia, **1228**; SOLARI, *Smicronyx* sp. n. (Curc.), Sardinia, **3348**.

Hymenoptera. — DE ANDRADE, *Miscophus* spp. n. (Spheg.), Cyprus, **74**; GUSSAKOVSKIĬ, new Sphegids, Cyprus, **1363**; INVREA, Sardinia, I, **1640**; *Smicromyrme* sp. n., Corsica, Cyprus, *S. rufipes* var. n., Corsica (Mutill.), **1642**; Mutillidae, I, Sardinia, **1645**; MAVROMOUSTAKIS, bees, Cyprus, IV, **2359**.

Lepidoptera. — BRADLEY, *Tortrix amplana* f.n., Malta, Entomologist

86 : 67 ; DANIEL, *Callimorpha quadripunctaria* subsp. n. (Arct.), Rhodes, **768**; DE LUCCA, Microlep., Malta, additions to list, **814**; HARTIG & AMSEL, Sardinia, **1438**; VALLETTA, Heterocera, Maltese Is., additions, **3648**; Microlep., Maltese Is., additions, **3649**.

Trichoptera. — VAILLANT, Helicopsyche sp. n., Corsica, **3646**.

Diptera. — PARAMONOV, *Toxophora* sp. n. (Bombyl.), Cyprus, **2669**.

Hemiptera. — LINNAVUORI, *Paramesus* sp. n. (Jass.), Lesbos, **2180**; SERVADEI, Sardinia, list, **3240**; WAGNER, Cyprus, some Heteroptera, **3773**.

Thysanoptera. — HOOD, *Chirothrips*, Cyprus, key, **1563**.

Embioptera. — STEFANI, gen. et spp. n., Sardinia, **3392**.

Odonata. — CONSIGLIO, Sardinia, some spp., Boll. Ass. romana Ent. **8** : 17–18.

Orthoptera. — WALOFF, Cyprus, **3801**.

Thysanura. — CONDÉ, *Campodea* sp. n., *Plusiocampa corcyraea* subsp. n., Corsica, **709**; WYGODZINSKY, Machilids, Lepismatids, Cyprus, **3962**.

NORTH AFRICA.

Insecta. — REYMOND, Sahara, 1947–1948, **2924**.

Coleoptera. — ANTOINE, *Cossyphus*, Morocco, key, **82**; BERTRAND, aquatic spp., **303**; BOITEL, *Plagionotus scalaris* (Curc.), Oran, Algeria, **372**; DEBATISSE, some Longicornia, Morocco, **797**; EASTON, *Meligethes lindbergi* (Nitidul.), new to Algeria, Tunisia, **947**; ESPAÑOL C., some Tenebrionids, Sahara, **1016**; KOCHER, *Timarcha* (Chrys.), Morocco, revision, **1913**; *Cebrio*, Morocco, **1914**; S. Morocco, **1915**; new records, **1917**; REYMOND, Rif, N. Morocco, collected by F. Reymond, 1927, **2925**; VRYDAGH, Bostrychidae, Sudan, Sahara, **3765**.

Hymenoptera. — DE BEAUMONT, Sphegids, Mauretania, distribution, **223**; Sphegids, Swiss mission, Morocco, **225**; *Olgia* (Spheg.), key, **230**; GIORDANI SOIKA, Eumeninae, Swiss Mission to Morocco, 1947, **1250**; INVREA, Apterogynidae, Myrmosidae, Mutillidae, Swiss Mission to Morocco, 1947, **1644**.

Lepidoptera. — BARRAGUÉ, *Pararge moera* (Satyr.), *Lysandra amandus* (Lycaen.), new to Algeria, **192**; HERBULOT, *Agdistis* spp. (Pterophor.), new to Morocco, **1488**; DE LESSE, *Hipparchia* subgen. *Neohipparchia* (Satyr.), revision, **2112**.

Diptera. — GAUD, Culicids, Morocco, distribution, keys to larvae, **1213**; GRENIER, Simuliidae, monograph, **1321**; GRENIER & THÉODORIDÈS, Simuliids, Morocco, **1323**; SÉGUY, Morocco, additions, **3226**; SICART, *Aëdes zammittii*, *echinus* (Culic.), new to Tunisia, **3283**; THIENEMANN, *Trichocladius fucicola* (Chiron.), new to Algeria, **3520**; VAILLANT, Dolichopodidae, list, **3637**; some Thaumaleidae, Algeria, **3638**; *Atalanta* subgen. *Kowarzia* (Empid.), key, **3644**; VERMEIL, *Aëdes vittatus* (Culic.), new to Tunisia, **3701**; Culicinae, Fezzan, **3702**.

Hemiptera. — BALACHOWSKY, Diaspidinae (Cocc.), pt. 4, **146**; DISPONS, *Ischnonyctes barbarus* (Reduv.), Algeria, key to varr., **867**; HOBERLANDT, Heteroptera, Siwa Oasis, Libyan Desert, **1531**; PRIESNER & ALFIERI, Heteroptera, Egypt, revision, **2832**; WAGNER, *Geotomus* (Cydnid.), key, **3772**.

Thysanura. — PAGÉS, *Symphylurinus* sp. n., Sahara, **2644**.

AFRICA.

Insecta. — SCOTT, Gughé Highlands, S. Ethiopia, **3213**.

Coleoptera. — BASILEWSKY, *Atrotus* (Carab.), revision, **199**; Carabids, Villiers Mission, Togo, Dahomey, 1950, **201**; Carabidae, W. Africa, list of some spp., **202**; Carabidae, flood area of the Niger, **203**; Carabidae, Parc nat. Upemba, Belg. Congo, **204**; Prionids, Parc nat. Upemba, Belg. Congo, **205**; Carabids, Expedition to Gughé Highlands, S. Ethiopia 1948–49, **206**; Carabidae, Réserve du Nimba, Fr. Guinea, **207**; *Microdipnus* (Carab.), key, **211**; Leleupidiini (Carab.), revision, **212**;

Bascanus (Carab.), key, **213**; Carabidae, Ruwenzori Exped., **215**; BECHYNÉ, Chrysomelidae, Parc nat. Albert, Belg. Congo, **236**; BREUNING, some Lamiids, Fr. Guinea, **458**; Lamiidae, Parc nat. Albert, Belg. Congo, **459**; BRYANT, Chrysomelidae, Ruwenzori Exped., **503**; DELÈVE, some Dryopidae, W. Africa, **810**; DELKESKAMP, Dacninae (Erotyl.), Parc nat. Upemba, Belg. Congo, **812**; DESCARPENTRIES, Buprestidae, flood area of the Niger, **838**; Buprestidae, Réserve du Nimba, Fr. Guinea, **839**; DUFFY, Cerambycidae, Parc nat. Upemba, Belg. Congo, **923**; Cerambycidae, Ruwenzori Exped., **925**; VAN EMDEN, Harpalini (Carab.), classification of genn.; *Anisotarsus* (Carab.), key, distribution, **990**; ERMISCH, Mordellidae, Belg. Congo, **1012**; ESPAÑOL COLL, Helopinae (Tenebr.), Sp. Morocco, **1017**; FAGEL, *Stilicus* (Staph.), keys, catalogue, **1039**, **1040**; FERREIRA, Oemini (Ceramb.), S. Africa, **1066**; FERREIRA & DA VEIGA FERREIRA, *Delochilis* (Prionid.), S. Africa, key, **1069**; FRANCISCOLO, *Sphalera* (*Neocurtimorda*) (Mordell.), revision, **1134**; GÜNTHER, *Zyrcosa*, *Synaptoplus*, *Platyomicus* (Curc.), keys, **1356**; HAAF, *Trox*, revision of *lurida* group, **1366**; JANSSENS, Scarabaeinae (Copr.), flood area of the Niger, **1700**; Oniticellini (Copr.), Parc nat. Upemba, Belg. Congo, **1701**; Lamellicornia, Lake Tanganyika, **1702**; *Proagoderus* (Copr.), Belg. Congo, list; *Afroharoldius* (Copr.), key, **1703**; JEANNEL, Pselaphids, Belg. Congo, V, **1717**; Pselaphids, Fr. Guinea, **1720**; Pselaphids, origin, distribution, **1724**; JOLIVET, Chrysomeloidea, flood area of the Niger, **1739**; KASZAB, *Epicauta* (Meloid.), revision, **1804**; *Cyaneolytta* (Meloid.), revision, **1805**; *Iselma* (Meloid.), S. Africa, key, **1807**; KOCH, Tenebrionidae, southern Africa, **1908–1912**; LEGROS, Haliplidae, Dytiscidae, Hydrophilidae, flood area of the Niger, **2082**; LEPESME, Cerambycids, Ivory Coast, catalogue, **2099**; Cerambycidae, Angola, **2100**; LEPESME & BREUNING, Cerambycids, Fernando Po, 1951; *Corus* (Lam.), W. Africa, key, **2101**; Cerambycoidea, Réserve du Nimba, Fr. Guinea, **2104**; MALKIN, *Machlotes* (Colydid.), revision, **2273**; MARSHALL, *Pseudomimus*, *Stenoscelis* (Curc.), keys, **2312**; Curculionidae, Angola, **2314**; OCHS, Gyrinidae, Parc nat. Upemba, Belg. Congo, **2591**; PIC, Malacodermoidea, flood area of the Niger, **2760**; POPE, *Teredolaemus*, *Sosylus* (Colyd.), Belg. Congo, keys, **2804**; RIVALIER, Cicindelidae, Réserve du Nimba, Fr. Guinea, **2972**; SCHEDL, Scolytoidea, Belg. Congo, new records, **3140**; SÉGUY, *Nigidius* (Lucan.), key, **3231**; STRANEO, Pterostichinae (Carab.), Expedition to Gughé Highlands, S. Ethiopia 1948–49, **3425**; Pterostichinae (Carab.), Réserve du Nimba, Fr. Guinea, **3426**; THÉROND, Histeridae, Réserve du Nimba, Fr. Guinea, **3516**; TOTTENHAM, Staphylinidae, Kilimanjaro, Mt. Kenya, Ruwenzori, **3562**; UHMANN, *Dactylispa* key to spp. allied to *chapuisii* (Staph.), **3606**; VILLIERS, Languriids, Parc nat. Upemba, Belg. Congo, **3737**; VOSS, some Cossoninae (Curc.), Belg. Congo, **3762**; VRYDAGH, Bostrychidae, flood area of the Niger, **3764**; Bostrychidae, Sahara, Sudan, **3765**; WOLFRUM, *Melanopsacus* (Anthrib.), key, **3925**.

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Coleoptera. — BREUNING, *Sybra*, *Ropica* spp. n. (Lam.), Key Is., **454**; DARLINGTON, *Bembidion* sp. n. (Carab.), **777**; GÜNTHER, *Apotomorrhamphus disjunctus* subsp. n. (Curc.), Larat, **1357**.

Diptera.—PARAMONOV, *Atriadops* sp. n. (Nemestr.), Aru I., **2666**.

Odonata. — LIEFTINCK, new spp. and subspp., **2158, 2161–2163**.

Orthoptera. — GÜNTHER, new Tetrigids, Buru I., **1352**.

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Coleoptera. — BREUNING, Lamiids, new genn. & spp., new records, **454, 455**; DARGE & SÉGUY, *Neolamprima adolphinae* var. n. (Lucan.), **775**; ENDRÖDI, *Leptaulax bicolor* subsp. n. (Passal.), **1001**; FRANZ, *Giganteopalpus* gen. et sp. n. (Lam.), **1139**; JOHN, *Aphanocephalus* sp. n. (Discolom.), **1734**; TOTTENHAM, *Philonthus* sp. n. (Staph.), **3561**;

UHMANN, *Brontispa* sp. n. (Hisp.), **3604**; WITTMER, new Cantharids, Malachiids, **3904**.

Hymenoptera. — VAN DER VECHT, *Hemipepsis* (Pompil.), annotated list of spp., **3687**.

Lepidoptera. — DIAKONOFF, Microlep., IV, **845**; Microlep., 3rd Archbold Exped., pt. II, **846**; HOULBERT, *Xyleutes* sp. n. (Cossid.), **1584**.

Diptera. — ALEXANDER, *Tipula*, *Antocha* (Tip.), spp. n., **46**; *Radinoderus* sp. n. (Tanyder.), **47**; FAIRCHILD, *Phlebotomus* (Psychod.), revision, **1046**; HERING, Trypetids, **1492**.

Siphonaptera. — SMIT, Netherlands New Guinea, pt. I, **3315**.

Hemiptera. — HUNGERFORD, *Agraptocorixa* sp. n. (Corixid.), **1613**; LALLEMAND & SYNAVE, new Cercopids, **2025**.

Odonata. — LIEFTINCK, new spp., **2158**, **2161**, **2163**; *Diplacina* section *smaragdina*, *Huonia* (Libellul.), revisions, **2162**.

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Coleoptera. — WITTMER, *Tylocerus* sp. n. (Canthar.), **3904**.

Lepidoptera. — OBRAZTSOV, *Hyalaethera* sp. n. (Ctenuch.), **2584**.

Diptera. — BELKIN, *Uranotaenia* (Culic.), revision, **257**.

Hemiptera. — LALLEMAND & SYNAVE, *Aufidus* sp. n. (Cercop.), **2025**.

Orthoptera. — WILLEMSE, **3875**.

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Hymenoptera. — CROSSKEY, *Aulacostethus* (Evan.), key, **750**; some Hyptiogastrinae (Evan.), revision, **751**; RAYMENT, bees, Portland district, Victoria, **2885**; some bees, Tasmania, **2887**.

Lepidoptera. — ANGEL, Northern Territory, **78**; CARPENTER, *Euploea* (Danaid.), **579**; COMMON, *Heliothis* (Agrot.), taxonomic status and distribution of spp., **704**; COUCHMAN, *Oreixenica* (Satyr.), notes on some spp. and key to Tasmanian spp., **732**; Hesperiidae. Northern Territory, **733**; TINDALE, Rhopalocera, Grampian Mts., list, **3537**; *Heteronympha penelope* (Satyr.), key to races, **3538**.

Trichoptera. — MOSELY & KIMMINS, monograph, **2472**.

Diptera. — DOBROTWORSKY & DRUMMOND, *Culex pipiens* complex, key, distribution, **872**; FAIRCHILD, *Phlebotomus* (Psychod.), revision, **1046**; HENNIG, *Delia urbana*, *Paregle radicum* (Musc.), new to fauna, **1483**; LEE & REYE, *Culicoides* (Ceratopog.), revision, **2077**; MACKERRAS, I. M. & M. J., Simuliidae, III, **2249**; PARAMONOV, Nemestrinidae, revision, **2666**; Apioceridae, review, **2667**; *Clytocosmus* (Tipul.), key, **2668**; SATCHELL, Psychodidae, pt. 1, **3110**; TONNOIR, Psychodidae, pt. II, **3558**.

Odonata. — FRASER, Gomphidae, **1142**.

Orthoptera. — KEY, Acridoidea, Tasmania, check list, **1853**; REHN, Pyrgomorphinae (Acrid.), monograph, **2894**.

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Coleoptera. — ARNETT, *Vasaces* (Oedem.), revision, **92**; *Cephaloon*, key, **93**; BLAKE, *Strabala* (Haltic.), revision, **341**; CARTWRIGHT, Bolboceratini (Geotrup.), revision, **584**; MONRÓS & VIANA, Cassidinae, catalogue, **2451**; SCHEERPELTZ, *Oligolinus* (Staph.), key, **3141**.

Hymenoptera. — KUSNEZOV, *Dorymyrmex* group (Form.), key, lists, **1994**; *Pogonomyrmex* (Form.), key, lists, **1996**.

Lepidoptera. — EVANS, Hesperiidae, pt. III Pyrginae, **1028**.

Diptera. — ACZÉL, *Paracantha* (Tryp.), revision, **9**; *Xanthaciura* (Tryp.), revision, **10**; Pterocallinae (Otitid.), catalogue, **11**; Trypetidae, suppl. to 1949 catalogue, **13**; FAIRCHILD, *Leucotabanus* (Taban.), key, **1043**; GABALDÓN & COVA-GARCÍA, Anophelines (Culic.), list, **1198**; PRATT, *Mansonia* subgen. *M.* (Culic.), key to pupae, **2821**; SABROSKY, Ormiini (Tach.), **3075**; VARGAS,

Culex spp., catalogue, **3661**; *Megarhinus* (Culic.), keys, **3662**; WIRTH, *Stilobezzia* (Ceratop.), revision, **3896**; *Monohelea* (Ceratop.), revision, **3897**.

Hemiptera. — BARBER, *Ptochiomera* & allied genn. (Lygaeid.), revision, **180**; DELONG, Neocoelidinii (Jass.), synopsis, **813**; DRAKE & CHAPMAN, *Trepobates* (Gerrid.), list of spp., **903**; *Hebrus*, new records, **904**; *Plea*, distribution, **905**; DRAKE & DE CARLO, *Ranatra annulipes* group (Nepid.), **906**; TRUXAL, *Buenoa* (Notonect.), revision, **3575**.

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Hymenoptera. — COLE, ants, Gt. Smoky Mountains National Park, Tennessee, list, **690**; ants, New Mexico, **691**; COOK, ants, California, **719**; COOPER, Penikese I., Massachusetts, list, **721**; GRUNDMANN & PETERSON, house infesting ants, new to Salt Lake City, Utah, **1337**; HARCOURT, *Tetrastichus sokolowskii* (Euloph.), new to fauna, Canad. Ent. **85**: 251; HEINRICH, Ichneumoninae, Maine, new records, **1468**; HURD, *Melecta* & allied genn. (Apid.), distribution, **1616**; KROMBEIN, Aculeata, Kill Devil Hills, N. Carolina, **1964**; TIMBERLAKE, *Perdita* (Apid.), revision, **3534**; WILLIAMS, *Solierella* (Spheg.), California, additions & corrections to 1950 revision, **3881**.

Lepidoptera. — CAPPS, *Hellula rogatalis*, not *undalis* (Pyral.), in New World, **568**; FERGUSON, *Itame*, revision of *occiduaria-argillacearia* complex (Geom.), **1061**; FORBES, *Taygetis* (Satyr.), key, **1108**; HARDY, some moths, Br. Columbia, **1412**; KIMBALL, Florida, additions to check list, **1864**; MATURO, Rhopalocera, Carteret County, N.C., check list, **2357**.

Trichoptera. — MORSE & BLICKLE, New Hampshire, check list, **2471**.

Mecoptera. — CARPENTER, *Brachypanorpa* spp., distribution, **578**.

Diptera.—BRELAND, *Culex*, key to larvae, Texas, **450**; CAMRAS, *Myopa* (Conopid.), review, **564**; CAPELLE, *Loxocera* (Psil.), revision, **566**; CHAGNON, Quebec, preliminary study, **611**; FRICK, Agromyzidae, additions and corrections to list, **1166**; HUCKETT, *Hylemya* (Musc.), revision (concl.), **1602**; JAMES, *Calliphora*, *Bufolucilia* (Calliph.), keys, **1687**; MARTIN, *Coleomyia* (Asil.), key, **2322**; MURPHY, Culicids, Arizona, distribution, **2501**; PHILIP, *Chrysozona* (Taban.), key, **2750**; PRITCHARD, Cecidomyiids, California, **2839**; REMPEL, mosquitos, Saskatchewan, **2922**; ROBACK, *Symbiocladius equitans* (Chiron.), U.S.A., new records, **2981**; *Hydrobaenus semivirens*, *ephemerae* (Chiron.), new to fauna, **2982**; SORENSON & FLUKE, Stratiomyiidae, Wisconsin, review, **3357**; STALKER, *Drosophila cardini* group, key, distribution, **3378**; STONE, *Merycomia* (Taban.), key, **3416**; SUDIA & GOGEL, *Orthopodomyia alba* (Culic.), in Georgia, **3450**; VENARD & MEAD, mosquitos, Ohio, annotated list, **3689**; VOCKEROTH, *Musca autumnalis*, in Nova Scotia, new to N. America, **3749**.

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Psocoptera. — MOCKFORD, *Archipsocus*, Florida, key to spp., *A. panama*, new to fauna, **2433;** Indiana, new records, **2434.**

Plecoptera. — HARDEN & MICKEL, Minnesota, **1403.**

Zoraptera. — COPELAND, *Zorotypus hubbardi*, in Tennessee, J. Tenn. Acad. Sci. **28** : 314.

Ephemeroptera. — BURKS, Illinois, **525.**

Odonata. — BICK, *Anax longipes* (Aeshn.), in Mississippi, Ent. News **64**: 230 ; MONTGOMERY, Indiana, 1951–52, **2454;** ROBERT, Parc du Mont Tremblant, Quebec province, **2986;** WALKER, Canada and Alaska, Vol. **I**, **3791;** WESTFALL, Florida, additions to list, **3853.**

Orthoptera. — GURNEY, *Grylloblatta*, key, **1359;** *Ectobius livens*, *Leucophaea maderae* (Blatt.), established, **1361;** HAUKE, Acrididae, Tetrigidae, Nebraska, annotated list, **1448;** KAMP, *Grylloblatta*, distribution, **1785;** RIHERD, *Blattella vaga*, in Texas, **2951;** URQUHART & BEAUDRY, *Roeseliana roeselii* (Tettig.), *Psinidia fenestralis* (Acrid.), in Quebec, **3622.**

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Lepidoptera. — VÁZQUEZ G., *Papilio oberthueri*, new to Mexico, **3684.**

Trichoptera. — ROSS, *Atopsyche dampfi* (Rhyacophil.), new to Honduras, **3026.**

Diptera. — BIAGI F. & DE BIAGI, some *Phlebotomus* spp. (Psychod.), Estado de Campeche, Mexico, **314;** BROOKMAN & REEVES, mosquitos new to Lower California, Mexico, **473;** DE BUEN, *Orthopodomyia* (Culic.), new to Mexico, **798;** FAIRCHILD, *Fidena*, *Stibasoma* (Taban.), keys, **1043;** some Tabanidae, State of Chiapas, Mexico, **1047;** JAMES, Asilids, Cockerell & Hubbell Expeditions to Honduras, **1686;** MACFIE, Ceratopogonidae, Costa Rica, **2240;** MARTÍNEZ PALACIOS, *Culex*, Mexico, distribution list, **2327;** *Culex inflictus*, *thriambus*, new to Mexico, **2328;** MARTÍNEZ PALACIOS & VARGAS, *Anopheles* (*Kerteszia*) *neivai* (Culic.), in Mexico, presence confirmed, **2329;** STALKER, *Drosophila cardini* group, key, distribution, **3378;** VARGAS, *Nemopalpus arroyoi* (Psychod.), new to Mexico, **3664;** *Tendipes* (*Limnochironomus*) *californicus* (Chiron.), new to Mexico, **3666;** VARGAS & DÍAZ NÁJERA, *Phlebotomus* (Psychod.), Mexico, list,

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Lepidoptera. — BROWN, *Battus* (Papil.), Ecuador, revision, **483**; BRYK, Amazonas region, Peru, **506**; HAYWARD, Nymphalidae, Argentina, **1457–1459**; Papilionidae, Argentina, **1460**; KÖHLER, Cucullianae (Agrot.), Argentina, **1920**; KUSNEZOV, *Atticonviva* (Tin.), new to Argentina, **1993**.

Diptera.—ACZÉL, Tylids, Neriids, Argentina, revision, **12**; Trypetini, key to Neotropical genn., **14**; *Trupanea* (Trypet.), revision of *diespasmena* group, **15**; ALBUQUERQUE, metallic Phaoninae (Musc.), key to genn., catalogue of spp., **41**; ALEXANDER, Tipuloidea, Argentina, I, **44**; Tipulidae, Ecuador, I–III, **52**; BURLA & PAVAN, *Drosophila calloptera* group, revision, **527**; CAMPOS R., Stratiomyiids, Tabanids, Pantophthalmids, Cyrtids, Ecuador, list, **560**; COVA GARCÍA, Anophelines (Culic.), Venezuela, distribution, **736**; ETCHEVERRY C., Syrphidae, new to Chile, **1024**; FAIRCHILD & HERTIG, *Phlebotomus* (Psychod.), new to Ecuador, **1048**; FLUKE, *Dolichogyna* (Syrphid.), revision, **1097**; HACK, Tabanids, Argentina, II, **1373**; HARDY, Bibionidae, Argentina, **1406**; LANE, Neotropical Culicidae, Vols. I & II, **2027**; *Mycetophila*, key, **2028**; LEVÍ-CASTILLO, *Haemagogus* (Culic.), revision, **2132**; Culicinae, Ecuador, list, **2137**; mosquitos, Ecuador, I, **2140**; DE LUCENA, *Phlebotomus* (Psychod.), N.E. Brazil, **2208**; MANSO SOTO, MARTÍNEZ & PROSEN, *Haemagogus* spp., *Aëdes* (*Gualteria*) *leucocaelenus* (Culic.), Argentina, Bolivia, distribution, **2295**; MARTÍNEZ & PROSEN, Culicids, Argentina, Bolivia, Paraguay, new records, **2326**; DE OLIVEIRA, *Clinotanypus* (Chiron.), new to Neotropical region, **2613**; ORTIZ, *Lasiohelea stylifer* (Ceratop.), new to Venezuela, **2623**; PÍFANO C. & ORTIZ, *Phlebotomus* (Psychod.), Venezuela, revision, **2774**; RODRÍGUEZ M., *Phlebotomus* (Psychod.), Ecuador, **2997**; DA SILVEIRA GUEDES, DE FREITAS & XAVIER, *Anopheles* (Culic.), Minas Gerais, Brazil, distribution, **3289**;

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Hemiptera. — CARVALHO, *Resthenia*, *Mimoncopeltus*, *Eurychilella* (Mirid.), keys, **589**; COOK, Membracids, new records, **718**; ESSIG, some Aphidae, **1022**; NAST, Cercopidae, **2528**; PÍFANO C. & ORTIZ, *Cavernicola pilosa* (Reduv.), new to Venezuela, **2775**; TORRES, *Sphongophorus paradoxus* (Membrac.), new to Argentina, **3560**; WYGODZINSKY, Cryptostemmatids, new to Argentina, **3957**; *Agriocleptes* (Reduv.), key, **3965**.

Thysanoptera. — HOOD, Brazil, III, **1562**.

Mallophaga. — CARRIKER, *Strongylocotes*, revision, **581**.

Odonata. — RÁCENIS, *Nephepeltia phryne*, *flavifrons* (Libell.), new to Venezuela, **2859**; Venezuela, records, **2861**.

Orthoptera. — KEVAN, Mantodea, Trinidad, prelim. list, **1839**; LIEBERMANN, *Trybliophorus* (Acrid.), key, **2155**.

Thysanura. — SILVESTRI, Japygidae, Chile, **3290**.

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Insecta. — KRAUSS, on *Lantana*, Cuba, list, **1960**; TUCKER, Barbados, **3581**.

Coleoptera.—ARNETT, Oedemerids, Bimini group, **90**; BLAKE, new Chrysomelids, **340**; *Strabala* (Haltic.), revision, **341**; BRUCE, *Loberus* spp. n. (Cryptophag.), Grenadines, Grenada, St. Vincent, **496**; DARLINGTON, Carabidae, Bahamas, annotated list, **776**; VAN DOESBURG, *Passalus* sp. n., St. Domingo, **880**; FISHER, *Buprestis* sp. n., Cuba, **1090**; POERINK, *Cicindela*, revision, **1754**; YOUNG, water beetles, Bahama Is., especially Bimini group, **3991**.

Hymenoptera. — KROMBEIN, Aculeata, Bimini Is., **1961**.

Lepidoptera.—BRYK, new Lep., **506**; EVANS, new Hesperiids, **1028**.

Diptera. — ACZÉL, Trypetidae, suppl. to 1949 catalogue, **13**; BURGERS, *Anastrepha serpentina* (Trypet.) new to Netherlands Antilles, **524**; CHARLES & SENEVET, *Anopheles albimanus* (Culic.), distribution, **622**; CURRAN, Asilidae, Mydaidae, Bimini Is., **762**; *Volucella* sp. n. (Syrph.), Jamaica, **763**; FOX, mosquitos, Porto Rico & *Culex* sp. n., **1122**; *Simulium* sp. n., Porto Rico, **1123**; GABALDÓN & COVA-GARCÍA, Anophelines, list, **1198**; JAMES, Stratiomyiids, Bimini Is., **1685**; VAN DER KUYP, mosquitos, Curaçao, **2011**; Culicinae, Netherlands Antilles and other Caribbean localities, **2012**; ROZEBOOM, *Anopheles albimanus* (Culic.), presence in Barbados, Amer. J. trop. Med. Hyg. **2** : 1116 ; SABROSKY, Ormiini (Tach.), spp. n., **3075**; STALKER, *Drosophila acutilabella* sp. n., Cuba, **3378**; STONE, *Merycomia* sp. n. (Taban.), Haiti, **3416**.

Hemiptera. — BARBER, *Alienates* gen. et sp. n. (Henicoceph.), Bahamas, **179**; *Exptochiomera* spp. n. (Lygaeid.), Porto Rico, Cuba, **180**; DRAKE, *Leptopharsa* sp. n. (Ting.), Cuba, **896**; DRAKE & DE CARLO, *Ranatra* spp. n., Cuba, Jamaica, **906**; MALDONADO CAPRILES, *Burtinus* sp. n. (Coreid.), Porto Rico, **2271**; *Ghilianella* sp. n. (Reduv.), Porto Rico, **2272**; YOUNG, *Empoasca solana* group (Jass.), revision, **3990**.

Thysanoptera. — HOOD, *Frankliniella* sp. n., Dominican Republic, Haiti, **1561**.

Orthoptera. — STROHECKER, Gryllacridae, Gryllidae, Bahamas, especially Bimini, **3434**.

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III.—SYSTEMATIC.

GENERAL.

Iconographia insectorum japonicorum, 2nd edn. revd., 13, 1738 & 203 pp. 15 col. pls. 4,967 figs.

List of insects from Cabin Mountain-Stony river dam area, Virginia, ALLARD & LEONARD 1952 Proc. W. Va Acad. Sci. **24** : 31–35.

Agricultural entomology, 2nd edn. revd., BEÏ-BIENKO & others 1949 764 pp. 267 figs.

List of insects of Johnston I., CHILSON Proc. Hawaii. ent. Soc. **15** : 81–84.

Classification of insects, COVA GARCÍA 1950 Publ. Div. Malar. no. 9 : 1–141, 133 figs.

Systematic list of Icelandic insects, GÍGJA 1945 37 pp. 1 map.

Additions and corrections to Vols. I and II of "Introduzione allo studio dell'Entomologia," GRANDI Boll. Ist. Ent. Univ. Bologna **19** : 263–306.

Insects of Mt. Ishizuchi and Omogo valley, Japan, ISHIHARA & others. Trans. Shikoku ent. Soc. **3** suppl. : 5–137, 8 pls.

Life-history studies in systematics, MICHENER Syst. Zool. **2** : 112–118.

Key for the determination of the most important injurious forest insects, 2nd edn., NUNBERG 1951 314 pp. 359 figs.

Insects of Bátorliget nature reserve, Hungary, SZÉKESSY & others Bátorliget élövilága pp. 182–401, illus.

List of insects of Barbados, TUCKER J. Barbados Mus. hist. Soc. **20** : 155–181.

Insects of Majdanpek forest area, E. Serbia, ZHIVOYINOVIT' 1950 Monogr. Acad. serbe Sci. **160** Inst. Ecol. Biogéogr. no. 2 vii & 262 pp. 21 pls. 1 map.

COLEOPTERA.

Value of genitalia of Coleoptera in systematics, BRUNDIN Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 12–21, 11 figs.

Coleoptera of Brazil, pt. 2, DA COSTA LIMA Ins. Brasil tome 8, 323 pp., 259 figs.

Classification of famm. of British Coleoptera (contd.), CROWSON Ent. mon. Mag. **89** : 37–59, 181–198, 237–248, 84 figs.

Supplement to the Coleoptera of Vogtland, Germany, ERMISCH Ent. Bl. **49** : 95–110.

Homologies of male genitalia of Rhynchophora and allied Coleoptera, GILBERT Ann. ent. Soc. Amer. **45** : 633–637, 2 pls.

Beetles of Pacific Northwest, pt. I, Introduction and Adephaga, HATCH Univ. Wash. Publ. Biol. **16** : i–vii & 1–340, 38 pls.

Malacodermata, Sternoxia (Elateridae–Throscidae) of Centr. Europe, HORION Faunistik mitt.-eur. Käfer Bd. 3 xviii & 340 pp.

List of Coleoptera of Mt. Ishizuchi and Omogo valley, Japan, ISHIHARA and others, Trans. Shikoku ent. Soc. **3** suppl. : 54–107, figs.

Some Coleoptera collected in S. Morocco, KOCHER C.R. Soc. Sci. nat. Maroc **1953** : 89.

List of Coleoptera of Jersey, LAST 1951 Bull. Soc. jersiaise **15** : 347–367.

Second contribution to Coleoptera of Canary Is., LINDBERG Comment. biol. **13** no. 12 : 1–18, 18 figs.

Third contribution to Coleoptera new to Switzerland, LINDER Mitt. schweiz. ent. Ges. **26** : 63–71.

Notes on Swedish Coleoptera, VII, PALM Ent. Tidskr. **74** : 8–23, 1 fig.

Coleoptera from Skåne Province, S. Sweden, II, PALMQVIST Opusc. ent. **18** : 37–47.

Malacodermoidea of flood area of the Niger, PIC Bull. Inst. franç. Afr. noire **15** : 1529–1534, 1 fig.

List of Coleoptera collected in the Sahara, 1947–1948, REYMOND Bull. Soc. Sci. nat. Maroc **32** : 80–84.

Coleoptera collected by F. Reymond in Rif, N. Morocco, 1927, REYMOND, C. & A. Bull. Soc. Sci. nat. Maroc **33** : 39–46.

Catalogue of Coleoptera of Czechoslovakia and E. Carpathians, III, ROUBAL [? 1941] 363 pp.

Coleoptera of the Galapagos Is., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22 : 1–181, 7 pls.

List of Arctic Alaskan Coleoptera, WEBER Ent. News **64** : 258–260.

Homologies of male genitalia of Coleoptera, WOOD Ann. ent. Soc. Amer. **45** : 613–617, 2 pls.

Types of Hydradephaga in the W. S. Blatchley collection, YOUNG Canad. Ent. **85** : 113–119.

CICINDELIDAE.

Swedish Cicindelidae, LINDROTH 1942 Svensk Insektfauna **9** : 27–30, figs.

Cicindelidae of Austrian Iran Expedition, MANDL S.B. öst. Akad. Wiss. Abt. I **162** : 53–54.

Cicindelids of Réserve du Nimba, Fr. Guinea, RIVALIER 1952 Mém. Inst. franç. Afr. noire no. 19 : 69–70.

Catalogue of World Cicindelini, SCHILDER Wiss. Z. Univ. Halle **3** : 539–571, 2 figs. (1 fldg.)

Cicindela nomenclatorial notes pp. 312–319 ; *gigantula* **n. n.** for *gigantea* Raff. nec Thnb. ; *viridipennis* **n. n.** for *viridis* Raff. nec Dej. ; *ornatipennis* **n. n.** for *ornata* Fleut. nec Klug ; *horni* **n. n.** for *angustata* Dej. nec Fisch. p. 313, SCHILDER Beitr. Ent. **3**.—*C.* revision of Caribbean spp. pp. 120–143 figs., JONGE POERINK Natuurwet. Stud. Suriname no. 8.—*C. inanis* Wall. a var. of *marginella* p. 190, BASILEWSKY Opusc. ent. **18**.—*C. campestris* **f. n.** *jugurthae* N. Africa p. 203, ANTOINE Rev. franç. Ent. **20**.—*C. soluta* subsp. *nordmanni*, *hybrida* subsp. *magyarica* characters p. 14, MANDL Ent. Arb. **4**.

Lophyridia angulata **subsp. n.** *scoliographa* Indo-China p. 83 ; *lunulata* revision of Mediterranean and N. African subspp. pp. 195–201 figs., RIVALIER Rev. franç. Ent. **20**.

Megacephala bocandéi **subspp. n.** *upembana*, *kaswabilengae* Belg. Congo p. 30, *seydeli* Tanganyika p. 32 figs., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Neochila **gen. n.** for *Odontochila kigonserana* Horn (type), *O. bennigseni* H., *O. erythropyga* Putzeys p. 33 figs., BASILEWSKY t.c.

Odontochila kigonserana, *bennigseni*, *erythropyga* see *Neochila*.

Oxychila systematic notes pp. 310–318 ; *distigma* Gory in subgen. s. str. not subgen. *Raminagrobis* ; keys to spp. p. 314 ; *pochoni* **sp. n.** Paraguay p. 317 figs., MANDL Mitt. schweiz. ent. Ges. **26**.

CARABIDAE.

List of Carabids of Villiers Mission 1950 to Togo and Dahomey, BASILEWSKY Bull. Inst. franç. Afr. noire **15** : 522–542.

List of some W. African Carabidae, BASILEWSKY Bull. Inst. franç. Afr. noire **15** : 1031–1035.

Carabidae of flood area of the Niger, BASILEWSKY Bull. Inst. franç. Afr. noire **15** : 1552–1560.

Carabidae of Parc nat. Upemba, Belg. Congo (keys p. 11), BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10 : 1–252, 10 pls., 57 figs., 1 fldg. map.

Carabids of Expedition to Gughé Highlands, S. Ethiopia 1948–49, BASILEWSKY J. Linn. Soc. Lond. **42** : 276–292, 9 figs.

Carabidae of Réserve du Nimba, Fr. Guinea, BASILEWSKY 1952 Mém. Inst. franç. Afr. noire no. 19 : 71–126, 25 figs.

Wallengren's types of S. African Carabidae, BASILEWSKY Opusc. ent. **18** : 190–192.

Revision of African Leleupidiini (keys p. 266), BASILEWSKY Rev. Zool. Bot. afr. **47** : 263–281, 25 figs.

Carabidae of Ruwenzori Expedition 1934–35, BASILEWSKY Ruwenzori Exped. 1934–35 **3** : 175–177.

List of Carabids of Lüneburg Heath, BLUMENTHAL Beitr. Naturk. Niedersachs. **6** : 14–24.

Annotated list of Carabidae of Bahamas, DARLINGTON Amer. Mus. Novit. no. 1650 : 1–16.

Australian Carabidae, I, DARLINGTON Psyche **60** : 52–61.

Generic classification of Neotropical Harpalini (key p. 519), VAN EMDEN Ann. Mag. nat. Hist. (12) **6** : 514–520.

List of N. Italian Carabidae, FOCARILE 1952 Boll. Soc. ent. ital. **82** : 72–79, 1 map.

Plates of catalogue of Carabinae, LAPOUGE Genera Insect. **192E** pls. 2–10.

Supplement of Fennoscandinavian Carabids, LINDROTH Opusc. ent. **18** : 17–21.

Kirby's types of N. American Carabidae, LINDROTH Proc. R. ent. Soc. Lond. (B) **22** : 167–177, 8 figs.

Swedish Carabidae, LINDROTH 1942 Svensk Insektfauna **9** 260 pp. 130 figs.

Carabidae (*Carabus*, *Calosoma*) of Austrian Iran Expedition, MANDL S.B. öst. Akad. Wiss. Abt. I **162** : 54–59.

Pterostichinae of Expedition to Gughé Highlands, S. Ethiopia 1948–49, STRANEO J. Linn. Soc. Lond. **42** : 295–297, 1 fig.

Pterostichinae of Réserve du Nimba, Fr. Guinea, STRANEO 1952 Mém. Inst. franç. Afr. noire no. 19 : 127–143, 26 figs.

Abacaelostus **gen. n.** p. 127, *filicornis* **sp. n.** Fr. Guinea p. 128 figs., STRANEO Mém. Inst. franç. Afr. noire no. 19, 1952.

Abacetus (*Distrigodes*) *dilutipes* **var. n.** *aureolus* Saigon; (*Caricus*) *ceylandoides* Java p. 3, (*Astygis*) *suboccidentalis* Belg. Congo p. 4 **spp. n.** figs., STRANEO Doriana **1** no. 36.

Acanthoodes **gen. n.** for *Oodes centrosternis* Chaud. p. 161 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Acupalpus (*Anthracus*) *punctulatus* **sp. n.** Oregon p. 185 figs., HATCH Univ. Wash. Publ. Biol. **16.**

Agonum fulgidicolle **abb. n.** *zaërensis*, *mediatlantis*, *tubkalensis*, *corvus* Morocco p. 205, ANTOINE Rev. franç. Ent. **20.**—*A. darwini* p. 25, *chathami* p. 26, *albemarli* p. 27 **spp. n.** Galapagos Is. figs., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.—*A.* (*Anchomenus*) *sargentorum* see *Colpodes buchanani*.

Aleptocerus quadripustulatus Dej. (=*Umtalius epigraphidius* Pér.) p. 146 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Amara (*Zezea*) *etschmiadsina* Eich. re-description p. 224, raised to sp.; *e.* **varr. n.** *kaszabi* Ankara p. 226, *jedličkana* Greece p. 227; (*Ź.*) *kulti* further description p. 230; (*Cyrtonotus*) *balianica* **n. n.** for *obesa* Bol. nec Say p. 231 figs., FASSATI Acta ent. Mus. nat. Pragae **27** 1952 no. 391.—*A.* (*A.*) *ovuloides* Chinese Turkestan, (*A.*) *sericea* Baikal p. 110, (*A.*) *bodeana* Siberia, (*Eoleirides*) *kaszabi* Turkestan, *székessyi* Persia p. 111 **spp. n.**, JEDLIČKA Ann. hist.-nat. Mus. hung. (N.S.) **3.**—*A.* (*Zezea*) *hypsophila* **sp. n.** Morocco p. 205, ANTOINE Rev. franç. Ent. **30.**

Amathitis furescens **ab. n.** *shismatica* Morocco p. 207, ANTOINE t.c.

Amblystomus posticalis **sp. n.** Belg. Congo p. 104 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Anaulacus key to E. Asian spp.; *fasciatus* **var. n.** *luzoensis* Luzon p. 60, JEDLIČKA Acta Mus. Siles. (A) **1** 1951.

Anchomenus insignicornis (*angulaticollis*) see *Leptagonum*.

Anilloferonia malkini **sp. n.** Oregon p. 119 figs., HATCH Univ. Wash. Publ. Biol. **16.**

Anisodactylus nemorivagus (with **f. n.** *nigripes* Germany), *binotatus* distinguishing characters p. 115 figs., GERSDORF Ent. Bl. **49.**—*A. rufus* see *Criniventer*.

Anisotarsus key to Neotropical spp.; *octopunctatus* Dej. from *Harpalus*; *praeclarus* Putz. from *Notiobia* p. 520; (*Anisostichus*) *laevis* **subsp. n.** *bolivianus* Bolivia, Argentina, Chile p. 528; (s. str.) *tucumanus* **subsp. n.** *nicki* Argentina p. 530; (s. str.) *margaretae* Peru p. 532, (s. str.) *stübeli* Ecuador p. 533, (s. str.) *latiusculus* Argentina, Brazil, Uruguay p. 535, (s. str.) *schnusei* Peru, Bolivia p. 537 **spp. n.**; *chalcites* Germ. (=*fulgens* Dej., *cupreonitens* Dej., *Harpalus violaceus* Perty) p. 538; distribution of Neotropical spp. pp. 527–547 figs., VAN EMDEN Ann. Mag. nat. Hist. (12) **6.**

Anoncopeucus abyssinicus, *bayeri*, *congoensis* see *Neoglyptus*.

Anoplophora stanleyana **varr. n.** *gloriosa* Burma p. 152, *grisea* Assam, *melancholica* Tonkin p. 153 fig., TIPPMANN Ent. Bl. **49.**

Anthia immaculata see *Piezia axillaris* subsp. *aptinoides*.

Antoinella groubéi **subsp. n.** *salibai* Morocco p. 203, ANTOINE Rev. franç. Ent. **20.**

Apenes parallela **subsp. n.** *inaguae* Inagua, Bahamas p. 14; *delicata* **subsp. n.** *laevior* S. Bimini I. p. 15, DARLINGTON Amer. Mus. Novit. no. 1650.

Aphaonus revised key to Balkan spp. p. 52, JEDLIČKA Ann. Mus. serb. merid. **1** 1939.

Apotomopterus dehaani **subspp. n.** *tosanus* p. 93, *ishizuchianus* p. 94; *insulicola arrowianus* Breun. (=*i. nagoyaensis* Nakane); *i.* **subsp. n.** *shizuokaensis*; *yaconinus* **subspp. n.** *iwawakianus*, *kiiensis* p. 95; *albrechti* **subsp. n.** *yamato*; *japonicus* **subsp. n.** *daisen* p. 96 Japan figs., NAKANE Sci. Reps Saikyo Univ. **1.**

Archagonum **gen. n.** for *hirtum* Raffr. p. 62, BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Archicolliuris exaratocollis **sp. n.** Madagascar p. 53 figs., BASILEWSKY Mém. Inst. sci. Madagascar (E) **3.**

Atrotus Pér. (=*Zargochilus* Alluaud), characters p. 6, key to spp. p. 9; *aethiopicus* Abyssinia p. 11, *leleupi* p. 13, *kundelunguensis* p. 14 Belg. Congo **spp. n.** figs., BASILEWSKY Ann. Soc. zool. Belg. **82** 1951.

Bascanidius see *Bascanus*.

Bascanus Pér. (=*Bascanidius* P.) p. 42; *claeys-bouuaerti* Ruanda p. 43, *vandenberghei* Urundi p. 45 **spp. n.**; key to spp. p. 47 figs., BASILEWSKY Rev. Zool. Bot. afr. **48.**

Bembidion revision of Palaearctic spp. (key p. 92) pp. 83–95; (*Peryphus*) *weiratherianum* **subsp. n.** *syriacum* Syria p. 83; (*Philochthus*) *aeneum* **subsp. n.** *athalassicum* Bessarabia p. 84; (*Phil-*) *guttuloides* **sp. n.** Taurus p. 85; *lateralis* Sam. from *Cillenus*; *subconnexum* **n. n.** for *laterale* Dej. nec Sam. p. 88; (*Nepha*) *genei* **subsp. n.** *adanae* Asia Minor; (*N.*) *callosum* **subsp. n.** *paralaterale* Tunisia, Algeria p. 93 figs., DE MONTE Mem. Soc. ent. ital. **31.**—*B.* (*Cillenus*) *alatum* **sp. n.** Moluccas p. 15, DARLINGTON Coleopt. Bull. **7.**—*B.* (*Hirmoplataphus*) *chetocoens* p. 88, (*Notaphus*) *stevensoni* p. 93, (*B.*) *oregonense* p. 98 **spp. n.** U.S.A. figs., HATCH Univ. Wash. Publ. Biol. **16.**—*B. klapperichi* **sp. n.**; *gagates* **ab. n.** *chinensis* Fukien p. 141, JEDLIČKA Ent. Bl. **49.**—*B.* (*Peryphus*) *wollastoni* **sp. n.** Canary Is. p. 1 figs., LINDBERG Comment. biol. **13** no. 12.—*B.* (*Philochtus*) *sumatrensis* **sp. n.** Sumatra p. 89, LOUWERENS Zool. Meded. **32.**—*B. equatoriale* **sp. n.** Galapagos Is. p. 15, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Blennidus violaceotinctus **sp. n.** Centr. America p. 8 fig., STRANEO Doriana **1** no. 36.

Bothynoptera key to E. Asian spp. p. 59; *tesaři* **sp. n.** Formosa p. 10, JEDLIČKA Acta Mus. Siles. (A) **1** 1951.

Brachinus explodens **subsp. n.** *armoricanus*; *crepitans* **subsp. n.** *jeanneli* France p. 45, RAZET Bull. Soc. Sci. Bretagne **26.**

Brachytachys **gen. n.**, *curtulus* **sp. n.** Belg. Congo p. 51 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.—*B. villiersi* **sp. n.** Senegal p. 1036, BASILEWSKY Bull. Inst. franç. Afr. noire **15.**

Caecocaelus scotti **sp. n.** S. Ethiopia p. 295 fig., STRANEO J. Linn. Soc. Lond. **42.**

Caelostomus sinuaticollis p. 131, *latiusculus* Kenya, *gigas* Belg. Congo p. 133, *subrobustus* p. 134, *longisulcatus* p. 135 Fr. Guinea **spp. n.** figs., STRANEO Mém. Inst. franç. Afr. noire no. 19 1952.

Calathus of Tenerife (key p. 202) pp. 201–233 figs., MATEU Eos **29.**—*C. scottianus* p. 283, *gughéensis*, *patrizii* p. 284 **spp. n.** S. Ethiopia; key to African spp. p. 285 figs., BASILEWSKY J. Linn. Soc. Lond. **42.**—*C. apicerugosus* **sp. n.** Canary Is. p. 2 figs., LINDBERG Comment. biol. **13** no. 12.

Callida bahamensis **sp. n.** S. Bimini I., Bahamas p. 11, DARLINGTON Amer. Mus. Novit. no. 1650.—*C. onoha* **ab. n.** *fukiensis* Fukien p. 146, JEDLIČKA Ent. Bl. **49.**

Callistomimus okutanii **sp. n.** China p. 35 fig., HABU Mushi **24** 1952.

Calosoma (*Callistriga*) *iranicum* **sp. n.** p. 55; (*Caminara*) *imbricatum* **subsp. n.** *löffleri* p. 57 Persia, MANDL S.B. öst. Akad. Wiss. Abt. I **162.**—*C. darwinia* **sp. n.** Galapagos Is. p. 10 fig., VAN DYKE Occ. Pap. Calif.

Acad. Sci. no. 22.—*C. striatius* **sp. n.** Oregon p. 54 figs., HATCH Univ. Wash. Publ. Biol. **16.**

Carabops janssensi **sp. n.** Belg. Congo p. 24 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Carabus revision of Centr. Asian spp. (keys p. 31) pp. 5–134; *kirghisorum* Centr. Tien Shan Mts. p. 61, *grigorjevi* S.E. Kazakhstan p. 99 **spp. n.**; *fedtschenkoi* **subsp. n.** *kondarensis* S. Hissar Mts. p. 127 figs., KRYZHANOVSKIĬ Opred. Faune SSSR **52.**

Cechenus pyrenaeus subspp. in E. Pyrenees pp. 43–47 figs., PUISSÉGUR Entomologiste **9.**

Chlaeniostenodes **subgen. n.** (type *coeruleipennis* Boh.) see *Chlaenites*.

Chlaenites (*Chlaeniostenodes* **subgen. n.** p. 134) *biseriatus* p. 135, (*Chlaenitidius*) *amplicollis* p. 136 **spp. n.**; (*Chlaenitidius*) *kapangae* **subsp. n.** *nigripennis* p. 138 Belg. Congo figs., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Chlaenius sudanensis Sudan, *tschitscherini* Africa, *grossepunctatus* E. Africa **spp. n.**; *canariensis* **subsp. n.** *teneriffensis* Teneriffe p. 113, JEDLIČKA Ann. hist.-nat. Mus. hung. (N.S.) **3.**—*C. sericimicans* Chaud. (=*tetragonoderus* Ōkura) p. 51, HABU Mushi **25.**

Cillenus lateralis see *Bembidion*.

Clivina diluta p. 54, *wiluna* p. 56, *grata* p. 58, *sculpticeps* p. 60 **spp. n.** Western Australia, DARLINGTON Psyche **60.**

Colpodes key to Oriental spp. p. 79; *cameroni* p. 102, *isomorphus*, *dohertyi* p. 105, *semiviridis* p. 107, *corpulentus* p. 119, *planithorax* p. 122, *janelloides* p. 125, *indiae* p. 137, *bigutticeps* p. 138 India, *esetosus* p. 104, *sumatrensis* p. 126, *mülleri* p. 133 Sumatra, *tenggerensis* p. 105, *emdeni* p. 110, *plicatus* p. 116, *drescheri* p. 117, *brittoni* p. 121, *orientalis* p. 124, *malaisei* p. 128, *castaneus* p. 129, *javanus* p. 133, *roepkei* p. 137, *beckingi* p. 139 Java, *antennatus* p. 108, *wardi* p. 127 Burma, *planops* p. 111, *elegantulus* p. 112 Himalaya, *longulus* ? Burma p. 113, *blötei* Lombok p. 114, *perigonoides* p. 115, *lieftincki* p. 123, *convexitarsis* p. 130, *attenuatus* p. 132 Celebes, *babaulti* Yunnan p. 134, *impressiceps* Sikkim, Assam p. 135 **spp. n.**; *lucens* **var. n.** *obsoletus* India p. 117; *modiglianii* **var. n.** *seminiger* Java p. 126; *doesburgi* p. 109, *latus* p. 120 redescriptions; list of spp. pp. 146–151 figs., LOUWERENS Treubia **22.**—*C. edai* **sp. n.** Japan p. 53, JEDLIČKA Acta Mus. Siles. (A) **2** 1952.—*C. buchanani* Hope (=*Agonum* (*Anchomenus*) *sargentorum* Malk. & Hatch) p. 134, MALKIN & HATCH Pan-Pacif. Ent. **29.**

Colpodichius **gen. n.** p. 141, *platyderoides* **sp. n.** Fr. Guinea p. 142 figs., STRANEO Mém. Inst. franç. Afr. noire no. 19 1952.

Colpoides key to known spp.; *kulti* **sp. n.** Szetchwan p. 211, JEDLIČKA Acta ent. Mus. nat. Pragae **27** 1952 no. 389.

Coptodera flavipes **sp. n.** Sumatra p. 90 fig., LOUWERENS Zool. Meded. **32.**

Coptolabris ignigena **f. n.** *costatus* China p. 302 fig., VOGT, C. & O. J. Psychol. Neurol. **48** 1938.

Craspedophorus reflexus F. 1781 designated type p. 171, BASILEWSKY Explor. Parc. nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Crepidogaster pauliani **sp. n.** Madagascar p. 64 figs., BASILEWSKY Mém. Inst. sci. Madagascar (E) **3.**—*C. leleupi* **sp. n.** Belg. Congo p. 169, BASILEWSKY Rev. Zool. Bot. afr. **47.**

Criniventer **gen. n.** for *Anisodactylus rufus* Br. p. 519, VAN EMDEN Ann. Mag. nat. Hist. (12) **6.**

Cymindis seriata **sp. n.** Washington p. 158 figs., HATCH Univ. Wash. Publ. Biol. **16.**

Cynthidia (*Pseudocynthidia* **subgen. n.**) *poeciloides* **sp. n.** Bolivia p.10, STRANEO Doriana **1** no. 36.

Diatypus (*Paradiatypus*) *kivuensis* **subsp. n.** *upembanus* Belg. Congo p. 89 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Diplochaetus desertus **sp. n.** California p. 98, VAN DYKE Pan-Pacif. Ent. **29.**

Diplous Japanese spp. pp. 69–71, HABU Kontyú **19** 1951 [not seen].—*D. tesaři* **sp. n.** Japan p. 209, JEDLIČKA Acta ent. Mus. nat. Pragae **27** 1952 no. 389.

Dispherícus quangoanus **subsp. n.** *upembanus* Belg. Congo p. 114 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Dromius (*D.*) *matsudai* **sp. n.** Japan p. 37 fig., HABU Mushi **24** 1952.

Drypta mordorata **sp. n.** p. 231; *pyriformis* **subspp. n.** *mayidiana*, *lualabana* (also Tanganyika) p. 233 Belg. Congo figs., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Dyschirius (s. str.) *tokyoensis*, (*Dyschiridius*) *igai* **spp. n.** Japan p. 97 figs., NAKANE Sci. Reps Saikyo Univ. **1**.

Eccoptoptera cupricollis **subsp. n.** *katangana* Belg. Congo p. 216 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Egadroma fukiensis **sp. n.** Fukien p. 142, JEDLIČKA Ent. Bl. **49**.

Elaphropus plumbeus **sp. n.** Belg. Congo p. 164, BASILEWSKY Rev. Zool. Bot. afr. **47**.

Emphanes latiplaga **subsp. n.** *mateui* Sahara p. 204, ANTOINE Rev. franç. Ent. **20**.

Eotachys brédoi p. 162, *kahuzianus* p. 163 **spp. n.** Belg. Congo, BASILEWSKY Rev. Zool. Bot. afr. **47**.—*E. testaceus* **sp. n.** Belg. Congo p. 53 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Epigraphus benoiti **sp. n.** Belg. Congo p. 175 fig., BASILEWSKY t.c.

Eucolliuris litura **var. n.** *fukiensis* Fukien p. 146, JEDLIČKA Ent. Bl. **49**.

Feronia waterhousei p. 17, *blairi* p. 19, *mutchleri* p. 20, *duncani*, *williamsi* p. 21 **spp. n.**; *galapagoensis* **subsp. n.** *becki* p. 23 Galapagos Is. figs., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Glyptus sculptilis Br. (=*hybridus* van Emd.) p. 102, BASILEWSKY Mém. Inst. franç. Afr. noire no. 19 1952.—*G. pectinatus*, *punctulatus*, *brevicornis* see *Neoglyptus*.

Graniger houškai **sp. n.** Palestine p. 208, JEDLIČKA Acta ent. Mus. nat. Pragae **27** 1952 no. 389.

Graphopterus albomarginatus **subsp. n.** *upembanus* Belg. Congo p. 116 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.—*G. serrator* **subsp. n.** *reymondi* Morocco p. 208, ANTOINE Rev. franç. Ent. **20**.

Gughéorites **gen. n.**, *scotti* **sp. n.** Abyssinia p. 256 figs., BASILEWSKY Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **9** 1951. Description also in J. Linn. Soc. Lond. **42** p. 288 figs.

Haptoderus mateui Coiff. a subsp. of *amoenus* Dej. not *champenoisi* Croiss. p. 38; (*Pyreneorites*) *amoenus* subsp. *champenoisi* **r. n.** *angladensis*; (*P.*) *infimus* **subsp. n.** *occidentalis* Fr. Pyrenees p. 38, COIFFAIT Rev. franç. Ent. **20**.

Harpalus kirbyi **sp. n.** no locality p. 174 figs., LINDROTH Proc. R. ent. Soc. Lond. (B) **22**.—*H. staudingeri* Turkestan, *erosoides* Transbaikalia **spp. n.** p. 112, JEDLIČKA Ann. hist.-nat. Mus. hung. (N.S.) **3**.—*H. octopunctatus* see *Anisotarsus*; *violaceus* see *A. chalcites*.

Hexagonia klapperichi **sp. n.** Fukien p. 142, JEDLIČKA Ent. Bl. **49**.

Holcoderus ophthalmicus **sp. n.** Java p. 93 fig., LOUWERENS Zool. Meded. **32**.

Homalolachnus goossensi **var. n.** *nigrocyaneus* Belg. Congo p. 148 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Horniulus quadrimaculatus **sp. n.** Sumatra p. 92 fig., LOUWERENS Zool. Meded. **32**.

Jujiroa **gen. n.** for *Sphodropsis nipponicus* Habu p. 18 fig., UÉNO Mushi **24** 1952.

Klepterus tolanus **sp. n.** S. Ethiopia p. 292, BASILEWSKY J. Linn. Soc. Lond. **42**.

Kurasawatrechus ohshimai **sp. n.** Japan p. 15 fig., UÉNO Mushi **24** 1952.

Kusumia **subgen. n.** (type *takahasii* sp. n.) see *Ryugadous*.

Lamottea **gen. n.**, *nimbana* **sp. n.** Fr. Guinea p. 277 figs., BASILEWSKY Rev. Zool. Bot. afr. **47**.

Lebia darlingtoni **sp. n.** Java p. 94 fig., LOUWERENS Zool. Meded. **32**.—*L. melaena* **sp. n.** U.S.A., Br. Columbia p. 152 figs., HATCH Univ. Wash. Publ. Biol. **16**.—*L. klapperichi* p. 144, *fukiensis* p. 145 **spp. n.** Fukien, JEDLIČKA Ent. Bl. **49**.

Leleupidia kahuziana p. 269, *grossepunctata* p. 270, *angusticollis* p. 271 **spp. n.** Kivu figs., BASILEWSKY Rev. Zool. Bot. afr. **47**.

Leptagonum key to African spp.; *insignicornis* Laf. (=*Anchomenus angulaticollis* Murr.) from *A.* p. 73; *sparsepunctatum* p. 74, *puncticeps* p. 75 **spp. n.**; *alternatum* **subsp. n.** *luluanum* p. 76 Belg. Congo fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Lioptera blötei **sp. n.** Sumatra p. 91 fig., LOUWERENS Zool. Meded. **32**.

Loxandrus subvittatus p. 5, *melas* p. 6 **spp. n.** Brazil, STRANEO Doriana **1** no. 36.

Lymnastis rugegeiensis **sp. n.** Belg. Congo p. 173, BASILEWSKY Rev. Zool. Bot. afr. **47**.—*L. minutus* **sp. n.** Belg. Congo p. 56 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Macrocheilus ocellatus **sp. n.** Belg. Congo p. 220 fig., BASILEWSKY t.c.—*M.* (*Macrocheilidius*) *madagascariensis* **sp. n.** Madagascar p. 62 figs., BASILEWSKY Mém. Inst. sci. Madagascar (E) **3**.

Mallopelmus lamottei p. 138, *flavipes*, *robustus* p. 139, *linearis* p. 140 **spp. n.** Fr. Guinea figs., STRANEO Mém. Inst. franç. Afr. noire no. 19 1952.

Marsyas proximus **sp. n.** Brazil p. 7 fig., STRANEO Doriana **1** no. 36.

Megalonychus straeleni **sp. n.** Belg. Congo p. 68 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Megodontus characters distinguishing French spp. pp. 67–70, SCHULER Bull. Soc. ent. Fr. **58**.

Melanchiton guineensis **sp. n.** Fr. Guinea p. 143 figs., STRANEO Mém. Inst. franç. Afr. noire no. 19 1952.

Metagonum dacryodes **sp. n.** S. Ethiopia p. 282, BASILEWSKY J. Linn. Soc. Lond. **42**.—*M. adami* p. 77, *janssensi* p. 78, *meeli* p. 80, *verheyeni* p. 82 **spp. n.** Belg. Congo fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Metalebia katangana **sp. n.** Belg. Congo p. 190 fig., BASILEWSKY t.c. —*M. cerrutii* **sp. n.** Abyssinia p. 46, BASILEWSKY Riv. Biol. colon. **12**.

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Microdaccus houškai **sp. n.** Israel; *opacicolor* **ab. n.** *nigroabdominalis* Anatolia p. 208, JEDLIČKA Acta ent. Mus. nat. Pragae **27** 1952 no. 389.

Microdipnus leleupi **sp. n.** Belg. Congo p. 173; key to African spp. p. 175 figs., BASILEWSKY Rev. Zool. Bot. afr. **47**.

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Mochtheroides klapperichi **sp. n.** Fukien p. 146, JEDLIČKA Ent. Bl. **49**.

Morion systematic position discussed pp. 51–54; *orientalis*, *georgiae* larvae compared p. 51 figs., VAN EMDEN Proc. Hawaii. ent. Soc. **15**.

Nebria rätzeri Bänn. (=subsp. *henroti* Jeann.) *castanea* distinguishing characters p. 34, BÄNNINGER Ent. Bl. **49**.—*N. lewisi* **ab. n.** *japonica* Japan; *pulcherrima* **ab. n.** *nitouensis* China p. 209, JEDLIČKA Acta ent. Mus. nat. Pragae **27** 1952 no. 389.—*N. raveni* **sp. n.** California p. 102, VAN DYKE Pan-Pacif. Ent. **29**.—*N. quezeli* p. 273, *kocheri* p. 274 **spp. n.** Morocco figs., VERDIER Bull. Soc. Sci. nat. Maroc **31**.

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Neobatenus wittei **sp. n.** Belg. Congo p. 71 fig., BASILEWSKY t.c.

Neodendragonum **gen. n.** for *laurenti* Basil. p. 65, BASILEWSKY t.c.

Neoglyptus **gen. n.** for *Glyptus pectinatus* All. (type), *G. punctulatus* Chaud., *G. brevicornis* Pér., *Anoncopeucus abyssinicus* Burg., *A. bayeri* B., *A. congoensis* B. p. 181 figs., BASILEWSKY t.c.

Neoleleupidia **gen. n.**, *kochi* **sp. n.** Kivu p. 276 fig., BASILEWSKY Rev. Zool. Bot. afr. **47.**

Neoodes **gen. n.** for *Oodes tazieffi* Basil. p. 156 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Neosiopelus irritans **sp. n.** Belg. Congo p. 95 fig., BASILEWSKY t.c.

Notiobia praeclarus see *Anisotarsus.*

Notiophilus quadripunctatus ab. *bisquadripunctatus* Ant. corrected to *bistripunctatus* p. 223, ANTOINE Rev. franç. Ent. **20.**

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Paraleleupidia raised to gen. not subgen. of *Leleupidia* p. 271; *laticollis* p. 273, *bururiana* p. 275, *spinicollis* p. 276 **spp. n.** Belg. Congo figs., BASILEWSKY Rev. Zool. Bot. afr. **47.**

Paramegalonychus **gen. n.** for *brunneoniger* Kolbe p. 64, BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Parena key to E. Asiatic spp. of subgen. *Crossoglossa* p. 210, JEDLIČKA Acta ent. Mus. nat. Pragae **27** 1952 no. 389.

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Pseudocynthidia **subgen. n.** (type *poeciloides* sp. n.) see *Cynthidia.*

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Pseudomorpha peninsularis Lower California, *alleni* Arizona **spp. n.** p. 99, VAN DYKE Pan-Pacif. Ent. **29.**

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Rhysotrachelus sulcatus F. (=*lautiusculus* Wall.) p. 192, BASILEWSKY Opusc. ent. **18.**

Rupa japonica further description p. 53, JEDLIČKA Acta Mus. Siles. (A) **2** 1952.

Ryugadous (*Kusumia* **subgen. n.**) *takahasii* **sp. n.** Japan p. 15 fig., UÉNO Mushi **24** 1952.

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Straneoa **gen. n.** for *Zargus collatatus* Karsch (=*Platynus opacipennis* Straneo p. 276) p. 273 figs., BASILEWSKY Bull. Ann. Soc. ent. Belg. **89.**

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Tapinopterus (*Crisimus*) *heyrovskyi* **sp. n.** Yugoslavia p. 51, JEDLIČKA Ann. Mus. serb. merid. **1** 1939.

Thermophilum burchelli **subsp. n.** *upembanum* Belg. Congo p. 214 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 10.

Thyreopterinus overlaeti **subsp. n.** *lusingae* Belg. Congo p. 211 fig., BASILEWSKY t.c.

Trechiama Jeann. (=*Yosiitrechus* Uéno) p. 13 figs., UÉNO Mushi **24** 1952.

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Trichotichnus (*Asmerynx*) *klapperichi* **sp. n.** Fukien p. 144, JEDLIČKA Ent. Bl. **49**.

Umtalius epigraphidius see *Aleptocerus quadripustulatus*.

Velimius **gen. n.**, *edai* **sp. n.** Japan p. 51, JEDLIČKA Acta Mus. Siles. (A) **2** 1952.

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PAUSSIDAE.

Catalogue of Paussidae, JANSSENS Coleopt. Catal. (Suppl.) pars 5 (2nd ed.): 6–84.

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CUPESIDAE.

Catalogue of Cupesidae, JANSSENS Coleopt. Catal. (Suppl.) pars 5 (2nd ed.): 3–5.

Priacma ♂ terminalia morphology pp. 1–8 figs., EDWARDS Bull. Inst. Sci. nat. Belg. **29** no. 28.

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British Hygrobiidae, BALFOUR-BROWNE Handb. Ident. Br. Ins. **4** pt. 3: 9.

HALIPLIDAE.

British Haliplidae, with keys, BALFOUR-BROWNE Handb. Ident. Br. Ins. **4** pt. 3: 3–9, figs.

Haliplidae of flood area of the Niger, LEGROS Bull. Inst. franç. Afr. noire **15**: 1561.

DYTISCIDAE.

British Dytiscidae, with keys, BALFOUR-BROWNE Handb. Ident. Br. Ins. **4** pt. 3: 9–29, figs.

Dytiscidae of flood area of the Niger, LEGROS Bull. Inst. franç. Afr. noire **15**: 1561–1563.

Dytiscidae of Bahama Is., especially Bimini group, YOUNG Amer. Mus. Novit. no. 1616: 3–11.

Agabus confusus Blatch. (=*amplus* Fall) from *Rhantus* p. 117, YOUNG Canad. Ent. **85**.—*A.* (*Gaurodytes*) *biguttatus* **ab. n.** *balearicus* Balearic Is., Spain etc.; *nitidus nigricollis* Zoub. (=*b.* var. *nubiensis* Rég.); *nitidus* F. (=*b.* var. *alligator* Norm.); *winkleri* Gschw. a var. of *nitidus* not subsp. of *b.* p. 117, GUIGNOT Rev. franç. Ent. **20**.

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Bidessonotus bistrigatus see *Allodessus*; (*Liodessus*) *luculentus* see *Liodessus strobeli*.

Bidessus subplicatus **sp. n.** Br. Columbia, Oregon p. 197 figs., HATCH Univ. Wash. Publ. Biol. **16.**—*B. imitator* **sp. n.** S. Africa p. 25 figs., OMER-COOPER Proc. R. ent. Soc. Lond. (B) **22.**—*B. cantralli* **sp. n.** S. Michigan p. 111, YOUNG Bull. Brooklyn ent. Soc. **48.**

Canthydrus edanus **sp. n.** Belg. Congo p. 3, GUIGNOT Bull. Inst. Sci. nat. Belg. **29** no. 18.—*C. addendus* see *Pronoterus*.

Canthyporus laccophiloides **sp. n.** Cape Town p. 31 figs., OMER-COOPER Proc. R. ent. Soc. Lond. (B) **22.**

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Cybister (*Nealocomerus*) *crotchi* Wilke (=*olivieri* Crotch 1873) a subsp. of *fimbriolatus* p. 7, YOUNG Amer. Mus. Novit. no. 1616.

Eretes larval characters p. 333 figs., BERTRAND Mém. Inst. sci. Madagascar (A) **3** 1949.

Herophydrus (*H.*) *tribolus* **sp. n.** Belg. Congo p. 2, GUIGNOT Bull. Inst. Sci. nat. Belg. **29** no. 18.

Hydaticus servillianus **subsp. n.** *ineptus* Belg. Congo p. 2, GUIGNOT op. cit. **29** no. 29.—*H. exclamationis* **ab. n.** *interrogator* Gaboon, Belg. Congo p. 143, GUIGNOT Rev. Zool. Bot. afr. **48.**

Hydrocanthus (*Sternocanthus*) *acrobeles* **sp. n.** Belg. Congo p. 3, GUIGNOT Bull. Inst. Sci. nat. Belg. **29** no. 18.

Hydrocoptus uellensis Belg. Congo, *cunctans* p. 197, *dermotylus* p. 198 Fr. Guinea **spp. n.,** GUIGNOT Bull. mens. Soc. linn. Lyon **22.**

Hydrodessus **gen. n.** p. 55, *siolii* **sp. n.** Brazil p. 56 fig., BALFOUR-BROWNE Proc. R. ent. Soc. Lond. (B) **22.**

Hydroporus latipes Br. (=*Celina subcylindrica* Rég.) p. 109, GUIGNOT Rev. franç. Ent. **20.**—*H. pseudovilis* **sp. n.** Michigan p. 116; *brumalis* re-description p. 118 figs., YOUNG Bull. Brooklyn ent. Soc. **48.**

Hydrovatus corniger, *impunctatus* **spp. n.** Belg. Congo p. 235, GUIGNOT Rev. Zool. Bot. afr. **47.**—*H. seydeli* p. 145, *noctivagus* p. 146, *glaber* p. 147 **spp. n.** Belg. Congo, GUIGNOT op. cit. **48.**—*H. tardiosus*, *nephodes* **spp. n.** Fr. Guinea p. 197, GUIGNOT Bull. mens. Soc. linn. Lyon **22.**—*H. indianensis* Blatch. partial redescription p. 114, YOUNG Canad. Ent. **85.**—*H. peninsularis* **sp. n.** Florida p. 21 fig., YOUNG Psyche **60.**

Hygrotus gouini **sp. n.** Asia Minor p. 115 fig., GUIGNOT Rev. franç. Ent. **20.**

Hyphydrus (*Apriophorus*) *pelates* p. 1, (*A.*) *ditylus* p. 2 **spp. n.** Belg. Congo, GUIGNOT Bull. Inst. Sci. nat. Belg. **29** no. 18.

Laccophilus virgatus, *concisus* **spp. n.** Belg. Congo p. 4, GUIGNOT t.c.—*L. deceptor* **sp. n.** Belg. Congo p. 1, GUIGNOT op. cit. **29** no. 29.—*L. spadix* **sp. n.** Cape Town p. 23 figs., OMER-COOPER Proc. R. ent. Soc. Lond. (B) **22.**—*L. vacaensis* **sp. n.** Florida p. 31; *proximus* status discussed p. 34 figs., YOUNG Florida Ent. **36.**—*L. leonensis* ♂; *bergeri* p. 236, *benoiti* p. 237, *monas* p. 238 **spp. n.** Belg. Congo, GUIGNOT Rev. Zool. Bot. afr. **47.**—*L. necopinus* **ab. n.** *diruptus* Belg. Congo p. 147, GUIGNOT op. cit. **48.**

Lancetes kuscheli **sp. n.** Chile p. 114 fig., GUIGNOT Rev. franç. Ent. **20.**

Liodessus strobeli Steinh. (=*Bidessonotus* (*Liodessus*) *luculentus* Guign.) p. 109; *burrus* **n. n.** for *nitidus* Babingt. nec Sturm; *bogotensis* Bolivia, *duplicatus* p. 111, *emaciatus* p. 112 Brazil **spp. n.,** GUIGNOT t.c.

Matus key to N. American spp. and subspp. p. 54; *leechi* p. 50, *relictus* p. 51 **spp. n.** U.S.A. figs., YOUNG Ann. ent. Soc. Amer. **46.**

Methles freyi **sp. n.** Fr. Guinea p. 198, GUIGNOT Bull. mens. Soc. linn. Lyon **22.**

Neptosternus compsus **sp. n.** Belg. Congo p. 2, GUIGNOT Bull. Inst. Sci. nat. Belg. **29** no. 29.—*N. horai* **sp. n.** India p. 424 fig., VAZIRANI Rec. Indian Mus. **50.**

Potamonectes luctuosus colour variations pp. 125–127 figs., HERVÉ Entomologiste **8** 1952.—*P. capensis* p. 27, *vagrans* p. 28 **spp. n.** Cape Province figs., OMER-COOPER Proc. R. ent. Soc. Lond. (B) **22.**

Pronoterus addendus Blatch. from *Canthydrus* p. 114, YOUNG Canad. Ent. **85.**

Rantus wallisi **n. n.** for *suturellus* Wallis nec Harr. p. 233, HATCH Univ. Wash. Publ. Biol. **16.**—*R.* (*Rhantus*) *confusus* see *Agabus*.

Thermonectes basillaris **subsp. n.** *galapagoensis* Galapagos Is. p. 33, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Yola (*Yolula*) *ocris* **sp. n.** Fr. Guinea p. 197, GUIGNOT Bull. mens. Soc. linn. Lyon **22.**—*Y. harrisoni* **sp. n.** Cape Province p. 24 figs., OMER-COOPER Proc. R. ent. Soc. Lond. (B) **22.**

GYRINIDAE.

British Gyrinidae, with keys, BALFOUR-BROWNE Handb. Ident. Br. Ins. **4** pt. 3: 29–31, figs.

Gyrinidae of Parc nat. Upemba, Belg. Congo, OCHS Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 16: 1–56.

Some Gyrinidae from the Sunda Is., OCHS Treubia **22**: 217–223.

Gyrinidae of Bahama Is., especially Bimini group, YOUNG Amer. Mus. Novit. no. 1616: 11.

Gyretes assimilis p. 141, *minusculus* p. 143, *transitus* p. 145, *gibbosus* p. 146, *tarsalis* p. 147, *longulus*, *brunnescens* p. 148 Brazil, *fiebrigi* Paraguay p. 142, *peruvianus* Peru p. 149 **spp. n.**; *dimorphus* **f. n.** *fulgens* Brazil p. 144, OCHS Opusc. ent. **18.**—*G. marcuzzi* **sp. n.** Venezuela p. 205, GUIGNOT Mem. Mus. civ. Stor. nat. Verona **3** [? 1953].

Gyrinus galapagoensis **sp. n.** Galapagos Is. p. 34, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Macrogyrus wetarensis **sp. n.** Wetar I. p. 217, OCHS Treubia **22.**

Orectogyrus (*O.*) *marlieri* **sp. n.** Belg. Congo p. 240, GUIGNOT Rev. Zool. Bot. afr. **47.**

STAPHYLINIDAE.

Some Staphylinidae from Guatemala, SCHEERPELTZ Beitr. Ent. **3**: 600–610.

Staphylinidae from Kilimanjaro, Mt. Kenya and the Ruwenzori, TOTTENHAM Ann. Mag. nat. Hist. (12) **6**: 481–512, 37 figs.

Actobius berei p. 493, *fallax* p. 495 Ruwenzori, *bolgius* Uganda p. 494 **spp. n.** figs., TOTTENHAM Ann. Mag. nat. Hist. (12) **6.**

Aenictobia **gen. n.** (Aleocharinae) p. 127, *longicornis* **sp. n.** Philippines p. 129 figs., SEEVERS Philipp. J. Sci. **81.**

Aenictoxenus **gen. n.** (Pygosteninae) p. 126, *chapmani* **sp. n.** Philippines p. 127 figs., SEEVERS t.c.

Afrostilicus **subgen. n.** (type *confusus* Fagel) see *Stilicus*.

Allostilicus **subgen. n.** (type *uniformis* Bernh.) see *Stilicus*.

Amischa analis Grav. (=*cavifrons* Sh.); *decipiens* Sh. p. 30, *arata* Muls. Rey p. 31 good spp., BENICK Ent. Bl. **49.**

Anthobiomimus **gen. n.** (Omaliinae) p. 171, *unicolor* (type) p. 173, *differens* p. 174 **spp. n.** W. Australia figs., STEEL Ent. mon. Mag. **89.**

Anthophagus (*A.*) *bicornis* **abb. n.** *inexspectatus* Bohemia, *carpathicus* p. 26; (*A.*) *alpinus* **abb. n.** *paratus* Carpathians, *fischeri* Silesia p. 27; (*Dimorphoschelus*) *omalinus* **ab. n.** *ursus* Carniola p. 28 figs., HAVELKA & DVORÁK Bull. Soc. ent. Mulhouse **1953.**

Astenus upis **sp. n.** Uganda p. 491 figs., TOTTENHAM Ann. Mag. nat. Hist. (12) **6.**

Atheta languida Er. (=*walshi* Will.); *wuorentausi* Bh. in subgen. *Anopleta*; *malleus* Joy a valid sp.; *magniceps* Sahlb. (=*hygrobia* Ths.); *volans* Scr. (=*halophila* Ths., *tomlini* Joy); *nigricornis* Ths. (=*vaga* Heer); *terminalis* var. *curvata* Ben. is ♀; *turbida* Epp. in subgen. *Liogluta*; *atramentaria* Gyll. (=*geysiri* Schub.); *spatula* Fvl. in subgen. *Bessobia*; *laticeps* Ths. (=*rigua* Will.); *quedenfeldti* Epp. a good sp.; *oreophila* Bernh. in subgen. *Atheta*; *testacea* Bris. a good sp. and not syn. of *tabida* Ksw.; *kochi* Roub., *trybomi* Sahlbg., *speluncicollis* Bernh. in subgen. *Anopleta*; *insignicollis* Fvl. in subgen. *Traumoecia*; *jelineki* Kr. a good sp., in subgen. *Pseudomicrodota*; *normandi* Fvl. to subgen. *Atheta*; *montandoni* Roub. to subgen. *Ousipalia*; *diversa* Sh. (=*dlouholuckae* Roub.); *vitalei* Bernh. to subgen. *Atheta*; *fungicola* Th. (=*ignobilis* Sh.); *hybrida* Sh. (=*nitidicollis* Fairm.); *gelida* Sahlbg. to subgen. *Atheta* p. 31; *flavida* Epp. to subgen. *Liogluta*; *pachycera* Epp. (=*sexdentata* Janss.); *pilicornis* Ths. (=*gynandrica* Sh.); *inoptata* Sh. (=*crassicornis* auct.); *nidicola* Joh. (=*cerasina* Meschn.); *harwoodi* Will. (=*tonsura* M.); *pertyi* Heer (=*franzi* Bernh.); *nitidiuscula* Sh. (=*alpestris* Heer, *leederi* Bernh.); *distans* Sh. to subgen. *Liogluta*; *pagana* Er. (=*obirensis* Meschn.); *granigera* Kiesw. (=*sexnotata* Ths.); *trigemina* Epp. a good sp.; *graminicola* Grav. (=*tenuicornis* Thoms.); *allocera* Epp. (=*silesiaca* Gerh.); *celata* Er. (=*arenicola* Ths.); *dadopora* Ths. (=*bufonis* Bernh.) a good sp.; *zosterae* Ths. (=*hodierna* Sh., *oloriphila* Keys); *nigra* Kr. (=*zosterae* auct.) a good sp.; *kanagawana* to subgen. *Badura*; *plebeja* Woll., *fungi* var. *orbata* Kr., *obfuscata* Grav., *parvula* var. *muscorum* Bris., *sharpiana* Woll. good spp.; *subsinuata* Er. (=*bohemica* Mach.) p. 32, BENICK Ent. Bl. **49.**—*A. tabida* see *Phytosus*.

Bledius arcticus Sahlb. the British sp. previously misidentified as *denticollis* Fvl. p. 64 figs., STEEL Ent. mon. Mag. **89.**

Carpelimus obesus characters p. 214 fig., STEEL t.c.

Conosomus tenuicornis **sp. n.** Canary Is. p. 5 figs., LINDBERG Comment. biol. **13** no. 12.

Eurystilicus **subgen. n.** (type *rubelloides* Fagel) see *Stilicus*.

Eustilicus **subgen. n.** (type *punctipennis* Bernh.) see *Stilicus*.

Falagria (*Anaulacaspis*) *rotundicollis* **sp. n.** Canary Is. p. 5 figs., LINDBERG Comment. biol. **13** no. 12.

Heterostilicus **subgen. n.** (type *dubiosus* Fagel) see *Stilicus*.

Lathrobium of France and neighbouring countries pp. 85–110 (keys p. 86, catalogue of Fr. spp. p. 107); (*Lobrathium*) *rufiventre* pp. 89, 105 (*Tetartopeus*) *erraticum* pp. 94, 106 France, (s. str.) *italicum* Italy pp. 104, 106 **spp. n.**; (s. str.) *geminum* **varr. n.** *difficilis*, *fallaciosus* France p. 104 figs., COIFFAIT Ann. Soc. ent. Fr. **122.**

Leleupidiella **gen. n.** (Aleocharinae), *cryptomydis* **sp. n.** Belg. Congo p. 62 figs., JARRIGE Rev. Zool. Bot. afr. **47.**

Leptacinus miltoni **sp. n.** Kilimanjaro p. 492, TOTTENHAM Ann. Mag. nat. Hist. (12) **6.**

Leptotyphlus babas **sp. n.** Kilimanjaro p. 487, TOTTENHAM t.c.

Leptusa (*Rhombopisalia* **subgen. n.** p. 66) key to spp. p. 68; (*R.*) *recticollis* p. 70, (*R.*) *mandli* p. 72, (*R.*) *montis-parii* p. 73, (*R.*) *pasubiana* p. 76 **spp. n.** N. Italy figs., SCHEERPELTZ Studi trentini **30.**

Leucoparyphus floralis **sp. n.** Senegal p. 520, CAMERON Bull. Inst. franç. Afr. noire **15.**

Lispinus jocator **sp. n.** Kilimanjaro p. 482, TOTTENHAM Ann. Mag. nat. Hist. (12) **6.**

Lithocharis villiersi **sp. n.** Fr. Guinea; *gerardi* ♂ p. 520, CAMERON Bull. Inst. franç. Afr. noire **15.**—*L. ochracea*, *nigriceps* characters p. 72 figs., KANGAS Ann. ent. fenn. **19.**

Mycetoporus pectinatus **sp. n.** Ruwenzori p. 499 figs., TOTTENHAM Ann. Mag. nat. Hist. (12) **6.**

Myllaena scylax, *coretas* **spp. n.** Ruwenzori p. 501, TOTTENHAM t.c.

Oedichirus villiersi **sp. n.** Senegal p. 519, CAMERON Bull. Inst. franç. Afr. noire **15.**

Oligolinus beckeri p. 602, *gracilentus* p. 603 **spp. n.** Guatemala; key to known spp. p. 604, SCHEERPELTZ Beitr. Ent. **3.**

Omaliopsis a subgen. of *Omalium*, q.v.

Omalium laticolle Kr. (=*foraminosum* auct. nec Mäkl., *brevicolle* auct. nec Thoms.) p. 198; *rugatum* Rey (=*caesum* var. *subruficorne* Bagn.) a good sp. not syn. of *caesum* p. 280 figs., STEEL Ent. mon. Mag. **89.**—*O. burgeoni* Bernh. a sp. not subsp. of *algidum*; *lobeliae* Kilimanjaro p. 483, (*Omaliopsis* a subgen.) *abyssinicum* Abyssinia p. 485 **spp. n.** figs., TOTTENHAM Ann. Mag. nat. Hist. (12) **6.**

Osorius vexator **sp. n.** Kilimanjaro p. 485 figs., TOTTENHAM t.c.

Paederus xeuxes **sp. n.** Kilimanjaro p. 490 figs., TOTTENHAM t.c.

Philonthus component spp. of *quisquiliarius* p. 141; *variipennis* (valid sp. p. 143) **varr. n.** *vacans* Penang, Siam, *ilus* Philippines; *diallus* China p. 145, *bassus* Batavia, Java, New Guinea, Celebes, *geus* Rarotonga, *misor* S. Africa, Sudan, Arabia, E. Africa p. 146, *sosis* Sudan, *daunus* Sudan, Gold Coast, *oebalus* Caucasus, *filator* Turkestan, Siberia p. 147, *swynnertoni* Kilimanjaro p. 496, *salti* Uganda p. 497 **spp. n.** figs., TOTTENHAM t.c.—*P. irritans* **sp. n.** Rhodesia p. 139 figs., TOTTENHAM Proc. R. ent. Soc. Lond. (B) **22.**—*P. tottenhami* p. 114, *capeneri* p. 115 **spp. n.** Natal figs., LAST Ent. mon. Mag. **89.**

Phloeognathus **gen. n.** (Phloeocharinae) *monticola* **sp. n.** New Zealand p. 162 figs., STEEL Ent. mon. Mag. **89.**

Phloeonomus punctipenne Thoms. a good sp. not var. of *pusillum* p. 270 figs., COIFFAIT Rev. franç. Ent. **20.**

Phloeopora falagrioides **sp. n.** Guatemala p. 608, SCHEERPELTZ Beitr. Ent. **3.**

Phytosus tabida Ksw. from *Atheta* p. 31, BENICK Ent. Bl. **49.**

Quedius coronatus **sp. n.** E. Pyrenees p. 33 figs., DELABIE Bull. Soc. ent. Fr. **58.**—*Q. marcuzzii* **sp. n.** Alps p. 130 figs., SCHEERPELTZ Boll. Soc. ent. ital. **83.**

Rhombopisalia **subgen. n.** (type *knabli* Bernh.) see *Leptusa*.

Scabrostilicus **subgen. n.** (type *crassus* Fagel) see *Stilicus*.

Scopaeus cylindricus **sp. n.** France p. 5; (*Polyodontus*) *portai* Luze (=*laneyriei* Coiff.) p. 6 figs., OCHS Bull. mens. Soc. linn. Lyon **22.**—*S.* (*Polyodontus*) *jarrigei* **n. n.** for *minimus* Coiff. nec Er. p. 267; (*P.*) *mateui* **sp. n.** Fr. Pyrenees; (*P.*) *laneyriei* Coiff. a good sp. not syn. of *portai* p. 268 figs., COIFFAIT Rev. franç. Ent. **20.**

Smectonia gridellii larva p. 49 figs., CERRUTI Riv. Biol. colon. **12.**

Staphylinus (*Goërius*) *addendus*, *auricomus* **spp. n.** Canary Is. p. 4 figs., LINDBERG Comment. biol. **13** no. 12.

Stenus umbratilis Casey (=*pseudopubescens* Strand); *pubescens* Steph. (=*fraternus* Casey) p. 198, STEEL Ent. mon. Mag. **89.**—*S.* (*Hypostenus*) *mackayi* p. 487, (*H.*) *terringtoni* p. 489 **spp. n.** Kilimanjaro figs., TOTTENHAM Ann. Mag. nat. Hist. (12) **6.**

Stilicus key to some African spp. p. 2; *rugosissimus* p. 4, *criberrimus* (also Gabon) p. 8, *rugipennis* p. 12, *rugiventris* p. 14, *ituriensis* p. 16, *sublaevipennis* p. 21, *formosus* p. 24 Belg. Congo, *rugosus* Abyssinia p. 7, *jeanneli* p. 11, *nitidipennis* p. 25 Kenya, *usambaricus* Tanganyika p. 17 **spp. n.** figs., FAGEL Bull. Inst. sci. nat. Belg. **29** no. 20.—*S. leleupianus* Fagel a subsp. of *planatus* p. 1; key to African subspp. of *planatus* p. 2; *p.* **subspp. n.** *fallaciosus* p. 4, *dolosus* p. 6 Belg. Congo, *kenyacus* Kenya p. 5 figs., FAGEL op. cit. **29** no. 21.—*S. dubiosus* p. 3, *intermedius* p. 6 **spp. n.** Belg. Congo; *hypsibathus* re-description p. 7 figs., FAGEL op. cit. **29** no. 24.—*S.* (*Parastilicus*) *alutipennis* p. 1, (*Cephalostilicus*) *gagates* p. 9 Belg. Congo, (*C.*) *aeneomicans* Kenya p. 6 **spp. n.**; (*C.*) *magniceps* re-description p. 3 figs., FAGEL op. cit. **29** no. 40.—*S. opacicollis* p. 1, *curticollis* p. 9, *zumpti* p. 11 re-descriptions; *lemurianus* Reunion I. p. 5, *simillimus* Mauritius p. 6, *itombwensis* Belg. Congo p. 7, *patrizii* Italian E. Africa p. 16 **spp. n.**; key to spp. p. 12; *rugosus* ♂ p. 13; *uniformis* Bernh. (=*laevipennis* B. p. 14, *uluguruensis* B., *nitidipennis*

Fagel); *clarissimus* B. (=*piceorufus* B.) p. 15 figs., FAGEL op. cit. **29** no. 41.—*S. jarrigei* **sp. n.** Belg. Congo p. 203; *moschiensis* characters p. 204; key to African subgenn. p. 282, catalogue of spp. p. 291; (*Scabrostilicus* pp. 283, 287, *Afrostilicus* pp. 284, 287, *Eurystilicus* pp. 284, 288, *Heterostilicus* pp. 284, 289, *Eustilicus* pp. 285, 289, *Allostilicus* pp. 285, 290 **subgenn. n.**) figs., FAGEL Bull. Ann. Soc. ent. Belg. **89**.

Tachyporus brevis **sp. n.** Canary Is. p. 5 figs., LINDBERG Comment. biol. **13** no. 12.

Trogophloeus (*Taenosoma*) *flavomarginatus* **sp. n.** Canary Is. p. 4 figs., LINDBERG t.c.—*T.* (*Taenosoma*) *nigripes* **sp. n.** Senegal p. 519, CAMERON Bull. Inst. franç. Afr. noire **15**.

Troposipalia (*T.*) *brevis* p. 503, (*Brachysipalia*) *salti* p. 506, (*B.*) *abacta* p. 507 Mt. Kenya, (*T.*) *separata* p. 503, (*T.*) *curva* p. 505, (*B.*) *recta* p. 507, (*B.*) *difficilis* Ruwenzori, (*B.*) *africana* Kilimanjaro p. 508 **spp. n.** figs., TOTTENHAM Ann. Mag. nat. Hist (12) **6**.

Typhlopolemon basilewskyi **sp. n.** Belg. Congo p. 60 figs., JARRIGE Rev. Zool. Bot. afr. **47**.

Zyras (*Creodonia*) *inermis* larva p. 53 figs., CERRUTI Riv. Biol. colon. **12**.—*Z.* (*Trachydonia*) *gelanor* p. 509, (*Grammodonia*) *responsor* p. 511 **spp. n.** Uganda figs., TOTTENHAM Ann. Mag. nat. Hist. (12) **6**.

PSELAPHIDAE.

Honduras Pselaphidae (key to Pselaphinae genn. p. 403), BECKER & SANDERSON Ann. ent. Soc. Amer. **46**: 399–432, 6 pls.

Pselaphids of Belg. Congo, V, JEANNEL Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **20**: 1–313, 316 figs.

Pselaphids of Fr. Guinea, JEANNEL Rev. franç. Ent. **20**: 1–28, 17 figs.

Key to Bythinini p. 255, list of known genn. etc. of U.S.A. p. 260, PARK Bull. Chicago Acad. Sci. **9**.

Discrimination of genn. of Pselaphidae of U.S.A., PARK Bull. Chicago Acad. Sci. **9**: 299–330.

Acanthicomus leleupi **sp. n.** (with **subsp. n.** *iturianus* p. 261) Belg. Congo p. 259 figs., JEANNEL Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **20**.—*A. lamottei* **sp. n.** Fr. Guinea p. 22 fig., JEANNEL Rev. franç. Ent. **20**.

Actium concavum **sp. n.** Honduras p. 416 figs., BECKER & SANDERSON Ann. ent. Soc. Amer. **46**.

Afroplectus (*Afroplectidius*) *quadratus* p. 98, (*A.*) *bitalensis* p. 99, (*A.*) *celisi* p. 100, (*A.*) *pygmaeus* p. 102, (*Afroplectodes*) *longulus* p. 103, (*A.*) *cephalotes* p. 104, (s. str.) *vesiculosus* p. 105, (s. str.) *hamatus* p. 106, (s. str.) *coronatus* p. 108, (s. str.) *humicola* p. 109, (s. str.) *thoracicus*, (s. str.) *bambusicola* p. 110, (s. str.) *longiventris* p. 111, (s. str.) *ombrophilus* p. 112 (with **subsp. n.** *katondianus*), (s. str.) *modestus* p. 113, (s. str.) *exilis*, (s. str.) *culminicola* p. 114, (s. str.) *validiceps* p. 116 (with **subsp. n.** *kahusicus*), (s. str.) *validus* p. 118, (s. str.) *latipennis* p. 119, (s. str.) *crispatus* p. 120, (s. str.) *microcephalus*, (s. str.) *dilaticollis* p. 121, (s. str.) *pinguis*, (s. str.) *terricola* p. 123, (s. str.) *iturianus* p. 124, (s. str.) *curticeps* p. 125, (s. str.) *cavifrons* p. 127, (s. str.) *sericeus* p. 128, (s. str.) *curtus*, (s. str.) *brevis* p. 129 **spp. n.** Belg. Congo figs., JEANNEL Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **20**.

Anomozethus leleupi **sp. n.** Belg. Congo p. 61 figs., JEANNEL t.c.

Apharina leleupi **sp. n.** Belg. Congo p. 287 figs., JEANNEL t.c.

Arcopagus (*Jugobythus* **subgen. n.**) *macedonicus* p. 92, (*J.*) *šarplaninensis* p. 94, *elegans* p. 95, *mosorensis* p. 97 **spp. n.** Yugoslavia; *argus* Kr., *scapularis* Reitt. distinct spp. p. 100; discussion of groups p. 113 figs., KARAMAN Acta Mus. macedonici Sci. nat. **1**.

Arthriclius **gen. n.**, *parvicollis* **sp. n.** Belg. Congo p. 207 figs., JEANNEL Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **20**.

Arthromelus (*A.*) *collaris* **subspp. n.** *gracilis*, *kahusicus* p. 266; (*A.*) *antennalis* p. 267, (*A.*) *bitalensis*, (*A.*) *obliteratus* p. 268, (*A.*) *brachypterus*, (*A.*) *celisi* p. 270, (*A.*) *bisetosus* p. 271, (*A.*) *bioculatus* p. 272, (*A.*) *corticicola*,

(*A.*) *abdominalis* p. 274, (*A.*) *opisthogonius* p. 275 **spp. n.**; (*A.*) *abbreviatus* **subsp. n.** *meridionalis* p. 268 Belg. Congo figs., JEANNEL t.c.—*A.* (*Scaiomelus*) *bechynei* **sp. n.** Fr. Guinea p. 24 fig., JEANNEL Rev. franç. Ent. **20.**

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Sphaerius madecassus **sp. n.** Madagascar p. 373 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

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Carcinops galapagoensis **sp. n.** Galapagos Is. p. 38, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

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Merycidae **fam. n.** for *Meryx* p. 43, CROWSON Ent. mon. Mag. **89**.

COLYDIIDAE.

Antibothrus clavatus p. 39, *sulcicollis* p. 41, *propinqua* p. 44 **spp. n.** Belg. Congo figs., POPE Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **19**.

Aprostoma anguliceps **sp. n.** Belg. Congo p. 14 figs., POPE t.c.

Endocozelus borbonicus **sp. n.** Reunion I. p. 143 fig., VINSON Bull. Soc. ent. Fr. **58**.

Ithris tuberculifrons **sp. n.** Belg. Congo p. 18 figs., POPE Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **19**.

Machlotes revision of African spp. pp. 149–161, key p. 160; *occidentalis* Sierra Leone, Belg. Congo, Cameroons p. 152, *houkae* Tanganyika p. 154, *mayumbe* p. 156, *hintoni*, *basilewskyi* p. 157, *obscurus* p. 158, *brunneus* p. 159 Belg. Congo **spp. n.** figs., MALKIN Rev. Zool. Bot. afr. **48**.

Mecedanum pilosum p. 9, *sexualis* p. 10 **spp. n.** Belg. Congo; *giganteum* Kr. (=*centralis* Hint.) p. 13 figs., POPE Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **19**.

Microprius donisi **sp. n.** Belg. Congo p. 20 figs., POPE t.c.

Pubala granulosa p. 15, *cylindrica* p. 17 **spp. n.** Belg. Congo figs., POPE t.c.

Roplyctus **gen. n.** p. 37, *minutus* **sp. n.** Belg. Congo p. 38 figs., POPE t.c.

Sosylus key to Belgian Congo spp. p. 21; *livadus* p. 23, *puncticollis* p. 24, *planifrons* p. 26, *alveatus* p. 27, *minutus* p. 28, *maynei* p. 29, *intermedius* p. 30, *variabilis* p. 31 **spp. n.** Belg. Congo figs., POPE t.c.

Teredolaemus key to spp. of Belg. Congo p. 33; *setipennis* p. 34, *seriatipennis* p. 35, *bicolor* p. 36 **spp. n.** Belg. Congo figs., POPE t.c.

BYTURIDAE.

Byturus tomentosus, *fumatus* early tages p. 630 figs., v. SCHÖNING Beitr. Ent. **3**.

DISCOLOMIDAE (NOTIOPHYGIDAE).

Aphanocephalus birdi **sp. n.** New Guinea p. 79 fig., JOHN Ann. hist.-nat. Mus. hung. (N.S.) **4**.

Cassidoloma fülleborni p. 111, *granifer* p. 113, *atrosignata* p. 114 **spp. n.** E. Africa figs., JOHN Ent. Bl. **49**.

Notiophygus commodus **sp. n.** S. Africa p. 32 fig., JOHN t.c.

CRYPTOPHAGIDAE (CATOPOCHROTIDAE).

Agnetaria **gen. n.**, *cryptophagoides* **sp. n.** S. Australia p. 790, BRUCE Ann. Mag. nat. Hist. (12) **6**.

Atomaria (*Anchicera*) *csikii* **sp. n.** Hungary, pp. 196, 477, KASZAB & SZÉKESSY in SZÉKESSY Bátorliget élővilága.

Cryptophagus notes on nomenclature of some spp. pp. 205–209, BRUCE Opusc. ent. **18**.—*C. dentatus* Herbst (=*fumatus* Marsh.); *fallax* **n. n.** for *fumatus* auct. nec Marsh. p. 258, BALFOUR-BROWNE Ent. mon. Mag. **89**.

Cryptophilus leonensis p. 786, *allotrius* p. 788 Sierra Leone, *mnionomoides* Tonkin p. 787 **spp. n.**, BRUCE Ann. Mag. nat. Hist. (12) **6**.

Henoticus pumilus **sp. n.** Mt. Cameron p. 789, BRUCE t.c.

Loberus semiaeneus (also Grenadines) p. 783, *laevis* (also Grenada) p. 784 St. Vincent, *aeratus* Florida p. 785 **spp. n.**, BRUCE t.c.

Mnionomus bicolor **sp. n.** Kilimanjaro p. 75, BRUCE t.c.

LANGURIIDAE.

Languriids of Missouri (key p. 19), FROESCHNER & MEINERS J. Kans. ent. Soc. **26**: 18–20.

Languriinae and Cladoxeninae of Parc nat. Upemba, Belg. Congo, VILLIERS 1952 Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 15: 1–42, 54 figs

Anadastus wittei p. 19, *janssensi* p. 20, *straeleni* p. 21, *similis* p. 23, *flavobasalis* p. 24, *uniformis*, *macrocephalus* p. 25, *flavidus* p. 26, *maculithorax*, *rufus* p. 27, *atrosuturalis* p. 29, *mayidiensis*, *upembensis*

p. 30, *eyeni*, *basilewskyi* p. 32, *bicolor* Br. E. Africa p. 20, *laevis* E. Africa p. 29 **spp. n.**; key to African spp. p. 33 figs., VILLIERS Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 15 1952.

Barbaropus adami p. 15, *meeli* Belg. Congo, *raffrayi* Zanzibar p. 16 **spp. n.**; key to African spp. p. 17 figs., VILLIERS t.c.

Caenolanguria rufocyanea **sp. n.** Belg. Congo; key to African spp. p. 37 figs., VILLIERS t.c.

Microlanguria benoiti p. 39, *bredoi* **spp. n.** Belg. Congo; key to African spp. p. 40 figs., VILLIERS t.c.

Penolanguria schoutedeni **sp. n.** Belg. Congo; key to African spp. p. 38 figs., VILLIERS t.c.

Promecolanguria janssensi p. 4, *wittei* p. 6, *dubia* p. 7, *fulvicornis* p. 8, *filiformis* p. 9, *atrocyanea* p. 10 **spp. n.** Belg. Congo; key to African spp. p. 11 figs., VILLIERS t.c.

EROTYLIDAE.

Dacninae of Parc nat. Upemba, Belg. Congo, DELKESKAMP Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 17: 59–82, 8 figs.

Erotylids of Missouri (key p. 20), FROESCHNER & MEINERS J. Kans. ent. Soc. **26**: 20–25.

Episcapha scenica **subsp. n.** *rufofemoralis* p. 75; *propinqua* **sp. n.** p. 77 Belg. Congo figs., DELKESKAMP Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 17.

Megalodacne (*Episcaphula*) *transiens* **sp. n.** p. 71; (*E.*) *megaloprepa* **subspp. n.** *rufior*, *octofasciata* p. 73 Belg. Congo figs., DELKESKAMP t.c.

Plagiopisthen ferrugineus **subspp. n.** *tenuis* p. 63, *wittei* p. 64 Belg. Congo figs., DELKESKAMP t.c.

Triplax dissimulator Cr. from *Tritoma* p. 21, FROESCHNER & MEINERS J. Kans. ent. Soc. **26**.—*T. lacordairei* **var. n.** *rufoapicalis* Hungary pp. 196, 477, KASZAB & SZÉKESSY in SZÉKESSY Bátorliget élővilága.

Tritoma dissimulator see *Triplax*.

ENDOMYCHIDAE.

Catalogue of Endomychidae, STROHECKER Genera Insect. **210E** 140 pp. 5 pls. 66 figs.

Africanasaula valid gen. not subgen. of *Saula* p. 134 figs., VILLIERS Bull. Soc. ent. Fr. **58**.

Archipines **n. n.** for *Phalantha* Gerst. nec Gistl p. 57 figs., STROHECKER General Insect. **210E**.

Austroclemmus **gen. n.** for *Rhymbus saltensis* Weise (type), *bruchi* W., *bonariensis* Steinh. p. 18 figs., STROHECKER t.c.

Bystodes **gen. n.**, *paulus* **sp. n.** Mindanao p. 19 figs., STROHECKER t.c.

Chetryrus **gen. n.** for *Trycherus raffrayi* Gorh. (type), *tricolor* Gerst., *notaticollis* Pic p. 1465, VILLIERS Bull. Inst. franç. Afr. noire **15**.—*C.* characters p. 256 figs., VILLIERS Bull. Ann. Soc. ent. Belg. **89**.

Crypticolus **n. n.** for *Philocryptus* Wasm. nec Gray p. 42 figs., STROHECKER Genera Insect. **210E**.

Cymones bicoloripes **sp. n.** Madagascar p. 274, PIC Mém. Inst. sci. Madagascar (E) **3**.

Danaë curvicrus, *parvidens* p. 86, *globifera*, *foveata*, *augusticlava* p. 88, *capnicera*, *heliobleta*, *longipennis* p. 90 **spp. n.** Belg. Congo figs., STROHECKER Rev. Zool. Bot. afr. **47**.

Heliobletus see *Tragoscelis*.

Malindus **gen. n.** p. 181, *excavatus* **sp. n.** Fr. Congo p. 182 figs., VILLIERS Rev. franç. Ent. **20**.

Microtrycherus luteosignatus further description p. 257 fig., VILLIERS Bull. Ann. Soc. ent. Belg. **89**.

Mychophilus see *Mychothenus*.

Mychothenus **n. n.** for *Mychophilus* Friv. nec Hesse p. 24 figs., STROHECKER General Insect. **210E**.

Phalantha see *Archipines*.

Philocryptus see *Crypticolus*.

Rhanidea **n. n.** for *Rhanis* Lec. nec Koch p. 35 figs., STROHECKER Genera Insect. **210E**.

Rhanis see *Rhanidea*.

Rhymbus saltensis, *bruchi*, *bonariensis* see *Austroclemmus*.

Stenotarsus tenuicornis **sp. n.** Belg. Congo p. 90 figs., STROHECKER Rev. Zool. Bot. afr. **47.**

Tragoscelis **n. n.** for *Heliobletus* Gorh. nec Reichenb. p. 61 figs., STROHECKER Genera Insect. **210E.**

Trycherus erotyloides Gerst. (=*donkieri* Pic); *d.* var. *externejunctus* Pic valid; *lateralis* Pic a var. of *erotyloides*; *hydroporoides* Gorh. (=*fenestratus* Pic); *f.* var. *obliteratus* Pic valid; *apicalis* Pic a good sp. and not var. of *angolensis*; *maculatus* Pic a var. of *longanimis*; *ovatus* Arrow (=*frater* A.); *inapicalis* Pic a good sp. and not var. of *appendiculatus*; *nigrithorax* Pic a var. of *inapicalis* not *appendiculatus* p. 1465; *royi* p. 1467, *lamottei* p. 1468, *sexpunctatus* p. 1503 Fr. Guinea, *gigas* p. 1473, *burgeoni* p. 1484, *bipunctatus* p. 1499, *kinduensis* p. 1501, *brinae* p. 1502 Belg. Congo, *chopardi* Gabon, Congo p. 1478, *mocquerysi* p. 1481, *stroheckeri* (also Cameroons) p. 1483, *fasciatus* p. 1504 Congo, *gerstaeckeri* Ashanti, Ivory Coast p. 1482, *convexus* Haute Sangha p. 1488, *ornatus* E. Africa p. 1489, *arrowi* Sierra Leone p. 1491, *oberthuri* p. 1493, *conradti* p. 1497 Cameroons, *bancoensis* Ivory Coast p. 1496 **spp. n.** figs., VILLIERS Bull. Inst. franç. Afr. noire **15.**—*T. appendiculatus* **subsp. n.** *triplex*; *basilewskyi* p. 81, *virilis* p.82, *ciliatipes*, *lobiventris*, *dubius* p. 84; *imperator* p. 92, *stanleyi*, *rugicollis* p. 93 **spp. n.** Belg. Congo figs., STROHECKER Rev. Zool. Bot. afr. **47.** —*T. raffrayi*, *tricolor*, *notaticollis* see *Chetryrus*.

COCCINELLIDAE.

S. African Coccinellidae, species incertae, ANDREAE Ann. S. Afr. Mus. **41**: 41–43.

British Coccinellidae, with keys, POPE Handb. Ident. Br. Ins. **5** pt. 7: 1–11, 23 figs.

Coccinellids of Upper Mississippi Basin, WINGO 1952 Iowa St. Coll. J. Sci. **27**: 15–53, 2 pls.

Adalia galapagoensis **sp. n.** Galapagos Is. p. 65, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Coccinella (*Adalia*) *bipunctata* **abb. n.** *triligata*, *grandipustulata*, *speyeriana* (also Kew Gardens, London) Holland p. 252 figs., DE JONG Ent. Ber., Amst. **14.**

Epilachna gibba characters p. 41; key to S. African ff. p. 42, ANDREAE Ann. S. Afr. Mus. **41.**—*E. argus* **subsp. n.** *maroccana* Morocco p. 46, KOCHER Trav. Inst. sci. chérifien no. 7.

Nephaspis amnicola **sp. n.** Iowa p. 44 figs., WINGO Iowa St. Coll. J. Sci. **27** 1952.

Prodilis brittoni **sp. n.** Brazil p. 301 figs., DA COSTA LIMA Dusenia **4.**

Psyllobora bisigma **sp. n.** Galapagos Is. p. 66, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Pullus limbatus Steph. a good sp. not var. of *suturalis* p. 128, POPE Ent. mon. Mag. **89.**

Scymnus (*Pullus*) *festatus* p. 31, (*P.*) *pulvinatus* p. 34, (*P.*) *nemorivagus*, (*P.*) *impunctus* p. 35, (*P.*) *hortensis* p. 36, (*P.*) *uncus*, (*P.*) *cultratus* p. 38, (*P.*) *majusculus* p. 40 **spp. n.** U.S.A. figs., WINGO Iowa St. Coll. J. Sci. **27** 1952.—*S. punctillum* larval stages, nymph pp. 4–13 figs., GOUX Rev. Path. vég. **32.**

Semiadalia grundmanni **sp. n.** Italy p. 129, MANDL Studi trentini **30.**

DERMESTIDAE.

Attagenus piceus colour forms p. 156, ZINKERNAGEL & MÜLLER Verh. schweiz. naturf. Ges. **132.**

Thaumaglossa pauliani larva p. 12 figs., PAULIAN Mém. Inst. sci. Madagascar (E) **3.**

BYRRHIDAE.

Pseudobyrrhus **subgen. n.** see *Seminolus*.

Seminolus raised to gen. not subgen. of *Byrrhus* p. 377, revision of Italian spp. (keys p. 379) pp. 371–404; (*Pseudobyrrhus* **subgen. n.** p. 377) *picipes* **subsp. n.** *orobianus* p. 380; (*P.*) *pilosellus* **subspp. n.** *similis*, *doderoi* p. 385 Italy figs., FIORI Redia **37** 1952.

DRYOPIDAE (PARNIDAE).

Check-list of Australian Dryopidae, BROOKS 1951 Publ. N Qd Nat. Cl. no. 6: 1.

Some W. African Dyropidae, DELÈVE Bull. Inst. franç. Afr. noire **15** : 1461–1462, 1 fig.

Lathelmis genitalia pp. 174–176 ; revision of German spp. pp. 176–184, key p. 176 ; *horioni* **sp. n.** Germany p. 179 figs., ILLIES Ent. Bl. **49.**

ELMIDAE.

Revision of Nearctic Elmidae (to be contd.), SANDERSON J. Kans. ent. Soc. **26** : 148–163, 3 pls.

Ordobrevia **gen. n.** for *Stenelmis nubifera* Fall p. 159 figs., SANDERSON J. Kans. ent. Soc. **26.**

Portelmis **gen. n.** for *Stenelmis nevermanni* Hint. p. 35 figs., SANDERSON Coleopt. Bull. **7.**

Stegoelmis key to S. American spp. ; *hintoni* **sp. n.** Ecuador p. 34 figs., SANDERSON t.c.

Stenelmis nevermanni see *Portelmis* ; *nubifera* see *Ordobrevia.*

Zaitzevia parvula larva p. 136 figs., PENNAK Trans. Amer. micr. Soc. **72.**

HYDROPHILIDAE.

Hydrophilidae of flood area of the Niger, LEGROS Bull. Inst. franç. Afr. noire **15** : 1563–1565.

Hydrophilidae of Bahama Is., especially Bimini group, YOUNG Amer. Mus. Novit. no. 1616 : 11–19.

Cercyon impressus **ab. n.** *rufipennis* Hungary, Slovakia, Rumania p. 116, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**

Meropathus randi **sp. n.** Marion I., Prince Edward Is. p. 163, JEANNEL Rev. franç. Ent. **20.**

Sphaeridium bipustulatum **ab. n.** *pulchrum* p. 115 ; *substriatum* **abb.n.** *transitum* (also Croatia), *immarginatum* (also Croatia), *nigrum* ; *lunatum* **ab. n.** • *inhumerale* (also Slovakia, Rumania, Croatia) p. 116 Hungary, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**

HELODIDAE (CYPHONIDAE).

Australian Helodidae, I, ARMSTRONG Proc. Linn. Soc. N.S.W. **78** : 19–32, 13 figs.

Calvarium semiobscurum (with **var. n.** *concoloripenne*) **sp. n.** Belg. Congo p. 3, PIC Bull. Inst. Sci. nat. Belg. **29** no. 14.

Cyphon binotatus **sp. n.** Belg. Congo p. 3, PIC t.c.—*C. madecassus* p. 276, *multinotatus, grandenotatus, atrofasciatus* p. 277, *fasciatofasciatus* p. 278 **spp. n.** Madagascar, PIC Mém. Inst. sci. Madagascar (E) **3.**—*C. australis* see *Heterocyphon.*

Daemon vittatus **sp. n.** Madagascar p. 342, PIC Mém. Inst. sci. Madagascar (A) **3** 1949. — *D.* (*Daemonimus* **subgen. n.**) ; (*D.*) *subjunctus, niger* p. 275, *grandis* p. 276 **spp. n.** Madagascar, PIC op. cit. (E) **3.**

Daemonimus **subgen. n.** (type *subjunctus* sp. n.) see *Daemon.*

Elodes atkinsoni, olliffi, cincta, montivagans, variegata (*tigrina*), *costellifera* see *Pseudomicrocara.*

Falsodrupeus **gen. n.**, *singularicornis* **sp. n.** Madagascar p. 343, PIC Mém. Inst. sci. Madagascar (A) **3** 1949.

Heterocyphon **gen. n.** for *Cyphon australis* Er. (type) p. 29 ; *macedonensis* **sp. n.** Australia p. 30 figs., ARMSTRONG Proc. Linn. Soc. N.S.W. **78.**

Macrocyphon spencei **sp. n.** Australia p. 30, ARMSTRONG t.c.

Peneveronatus **gen. n.** p. 31, *australis* **sp. n.** Australia p. 32 figs., ARMSTRONG t.c.

Pseudomicrocara **gen. n.** for *Elodes atkinsoni* Waterh., *E. olliffi* Blackb., *E. cincta* B., *E. montivagans* B., *E. variegata* Cart. (=*tigrina* C.), *E. costellifera* C. p. 19 ; key to spp. p. 20 ; *orientalis* (type) p. 23, *occidentalis* p. 24, *dixoni, infuscata, variabilis* p. 25, *minor, elstoni, elongata* p. 26, *spencei, picta, maculiventris* p. 27, *anobioides* p. 28 **spp. n.** Australia figs., ARMSTRONG t.c.

Ptilodactyla salti **sp. n.** Kilimanjaro p. 77, PIC Ann. Mag. nat. Hist. (12) **6.**

Scirtes diversipes p. 3, *atrofemoralis* p. 4 **spp. n.** Belg. Congo, PIC Bull. Inst. Sci. nat. Belg. **29** no. 14.—*S. atrosignatus* **sp. n.** Madagascar p. 343, PIC Mém. Inst. sci. Madagascar (A) **3** 1949.

Singularodaemon **gen. n.**, *pauliani* **sp. n.** Madagascar p. 274, PIC op. cit. (E) **3**.

DASCILLIDAE.

Eubrianax scotti **sp. n.** S. Ethiopia p. 293 figs., PIC J. Linn. Soc. Lond. **42**.

CEBRIONIDAE.

Cebrio contribution to study of Moroccan spp. pp. 301–323; variations of spp. p. 303; *ruficollis* **ab. n.** *thoracicus*, **var. n.** *reymondi* p. 309; *favieri* **subsp. n.** *zaërensis* p. 313; *satanas* p. 315, *peyerimhoffi* p. 316, *atlasicus* (with **var. n.** *panousei* p. 319) p. 318, *mediatlantis* (with **abb. n.** *fuscipennis*, *maculithorax* p. 320, **subsp. n.** *rufisternis* p. 321, **ab. n.** *fulvescens*), *rungsi* p. 322 **spp. n.** Morocco figs., KOCHER Bull. Soc. Sci. nat. Maroc **32**.

SPHINDIDAE.

British Sphindidae, with key, POPE Handb. Ident. Br. Ins. **5** pt. 7: 11.

BOSTRYCHIDAE.

Bostrychidae of flood area of the Niger, VRYDAGH Bull. Inst. franç. Afr. noire **15**: 1535–1538.

Bostrychidae of the Sahara, VRYDAGH Bull. Inst. Sci. nat. Belg. **29** no. 4: 1–4.

Bostrychidae of the Sudan, VRYDAGH Bull. Inst. Sci. nat. Belg. **29** no. 26: 1–6.

Psoa viennensis early stages p. 8 figs., MILLER & REZÁČ Zool. ent. Listy **2**.

ANOBIIDAE (ASPIDIPHORIDAE).

Anobium identification of Thunberg's S. African spp. pp. 44–45, ANDREAE Ann. S. Afr. Mus. **41**.—*A. punctatum* pupae p. 588 figs., BLETCHLY Bull. ent. Res. **43**.

Ernobius mollis all stages pp. 4–16 figs., GARDINER Trans. R. ent. Soc. Lond. **104**.

Mesocaelopus mimeuri **sp. n.** Morocco p. 19, PIC C.R. Soc. Sci. nat. Maroc **1953**.

Xyletinus pauliani **sp. n.** (PIC) N. Amsterdam I. p. 43, larva (PAULIAN) p. 45 figs., PIC & PAULIAN Rev. franç. Ent. **20**.

PTINIDAE.

Revised key to larvae of Ptinidae associated with stored products in Britain, HALL & HOWE Bull. ent. Res. **44**: 85–96, 92 figs., 1 fldg. table.

Gibbium psylloides author's name spelt Czenpinski p. 128, DAVENPORT Ent. mon. Mag. **89**.

Mezium andreaei **sp. n.** Namaqualand p. 253, PIC Ann. Transv. Mus. **22**.

Ptinus kocheri **sp. n.** Morocco p. 19, PIC C.R. Soc. Sci. nat. Maroc **1953**.—*P. alboguttatus* **sp. n.** Madagascar p. 341, PIC Mém. Inst. sci. Madagascar (A) **3** 1949.—*P.* (*Diegous*) *pauliani* **sp. n.** Madagascar p. 257, PIC op. cit. (E) **3**.

Sphaericus orbicularis **sp. n.** Canary Is. p. 8 figs., LINDBERG Comment. biol. **13** no. 12.

CLERIDAE.

Ceratocopus nigripes **sp. n.** E. Africa p. 320, PIC Beitr. Ent. **3**.

Eburiphora (*Spinopallenis* **subgen. n.** p. 266) *viridicollis*, *pauliani*, *subcaerulea* p. 267, *insignata* p. 268 **spp. n.** Madagascar, PIC Mém. Inst. sci. Madagascar (E) **3**.

Enoplioides notatipes **subsp. n.** *apicalis* Madagascar p. 342, PIC op. cit. (A) **3** 1949.

Evenus atripennis **sp. n.** Madagascar p. 342, PIC op. cit. (A) **3** 1949.—*E. pauliani*, *angustissimus* **spp. n.** Madagascar p. 257, PIC op. cit. (E) **3**.

Falsocorynetes luteonotatus **sp. n.** Kwei p. 501, PIC Bull. Inst. franç. Afr. noire **15**.

Gyponyx dekeyseri Fernando Po p. 161, *junodi* Transvaal p. 501 **spp. n.** fig., PIC t.c.

Impressopallenis **gen. n.**, *laticeps* **sp. n.** Madagascar p. 266, PIC Mém. Inst. sci. Madagascar (E) **3**.

Lebasiella unimaculata **sp. n.** Mexico p. 322, PIC Beitr. Ent. **3**.

Liostylus pauliani p. 269, *nigrofasciatus*, *bifasciatus* p. 270 **spp. n.** Madagascar, PIC Mém. Inst. sci. Madagascar (E) **3**.

Microstygmatium viridenotatum **sp. n.** Fernando Po p. 160 fig., Pic Bull. Inst. franç. Afr. noire **15.**

Myrmecomaea nitidissima p. 270, *luteoapicalis* p. 271 **spp. n.** Madagascar, Pic Mém. Inst. sci. Madagascar (E) **3.**

Opilo fenestratus **sp. n.** China p. 321, Pic Beitr. Ent. **3.**

Pseudopallenis unifasciatus p. 268, *nitidofasciatus* p. 269 **spp. n.** Madagascar, Pic Mém. Inst. sci. Madagascar (E) **3.**

Spinopallenis **subgen. n.** (type *viridicollis* sp. n.) see *Eburiphora.*

Stenocylidrus fastigatus **var. n.** *olivaceus* Madagascar p. 341, Pic Mém. Inst. sci. Madagascar (A) **3** 1949.—*S. innotatipennis* **sp. n.** Madagascar p. 265, Pic op. cit. (E) **3.**

Strotocera unimaculata **sp. n.** W. Africa p. 320, Pic Beitr. Ent. **3.**

Teneropsis sumatrensis **sp. n.** Sumatra p. 322, Pic t.c.

Tenerus infratestaceus **var. n.** *holasi* Fr. Guinea p. 501, Pic Bull. Inst. franç. Afr. noire **15.**

Thriocera atricolor **sp. n.** S. Africa p. 500, Pic t.c.—*T. unifasciata* **sp. n.** E. Africa p. 321, Pic Beitr. Ent. **3.**

Tillocladiscus **gen. n.**, *diversesignatus* **sp. n.** Madagascar p. 265, Pic Mém. Inst. sci. Madagascar (E) **3.**

MALACHIIDAE.

Malachiidae of Shansi, N. China, Wittmer Mushi **25** : 71–73, 2 figs.

Apalochrus longelaciniatus, brevecarinatus **spp. n.** Belg. Congo p. 2, Breuning Bull. Inst. Sci. nat. Belg. **29** no. 14.—*A. festivus* **var. n.** *paulojunctus* Fr. Sudan p. 1530, Pic Bull. Inst. franç. Afr. noire **15.**

Attalus taylori **varr. n.** *kivuensis, viridesignatus, reductesignatus* Belg. Congo p. 1, Pic Bull. Inst. Sci. nat. Belg. **29** no. 14.—*A. luctuosus* **n.n.** for *tristis* Lindb. nec Lucas ; *crispus* p. 6, *sublaevis* p. 7 **spp. n.** Canary Is. figs., Lindberg Comment. biol. **13** no. 12.—*A. montanus* p. 18, *emiliae* p. 117 **spp. n.** Morocco, Pic C.R. Soc. Sci. nat. Maroc **1953.**

Carphurus mascadaensis, rabaulensis **spp. n.** New Britain p. 217, Wittmer Ann. Mag. nat. Hist. (12) **6.**

Cephaloncus somalicus **sp. n.** Brit. Somaliland p. 86 fig., Wittmer Proc. R. ent. Soc. Lond. (B) **22.**

Colotes pallidulus S.W. Africa p. 87, *scotti, bigibbosus* p. 88, *tuberculifrons, sulcifrons* p. 89, *planifrons* p. 90 S. Africa **spp. n.** figs., Wittmer t.c.

Dicranolaius benneri **sp. n.** Java p. 221 fig., Wittmer Ann. Mag. nat. Hist. (12) **6.**

Ebaeus nigerianus p. 282, (*Mixis*) *crassicornis* Nigeria, (*M.*) *balfourbrownei* S.W. Africa p. 284 **spp. n.** figs., Wittmer Mitt. schweiz. ent. Ges. **26.**—*E. shirahatai* **sp. n.** N. China p. 71 fig., Wittmer Mushi **25.**

Falsoanthocomus signatus **sp. n.** Madagascar p. 344, Pic Mém. Inst. sci. Madagascar (A) **3** 1949.—*F. submarginatus* **var. n.** *pauliani* Madagascar p. 253, Pic op. cit. (E) **3.**

Hedybius aliwalensis S. Africa, (*Hedybiinus*) *ochraceus* S.W. Africa **spp. n.** p. 91 figs., Wittmer Proc. R. ent. Soc. Lond. (B) **22.**

Illops cavicornis **sp. n.** S.W. Africa p. 90 fig., Wittmer t.c.

Laius oblongoguttatus Allor I. (E. Indies), *balfour-brownei* Timor **spp. n.** p. 220 figs., Wittmer Ann. Mag. nat. Hist. (12) **6.**

Luzonotroglops strigilatus **sp. n.** New Guinea p. 222, Wittmer t.c.

Malachius limbellus **sp. n.** N. China p. 73, Wittmer Mushi **25.**

Mastilius immaculatus **var. n.** *rufosuturalis* Madagascar p. 256, Pic Mém. Inst. sci. Madagascar (E) **3.**

Paracarphurus **gen. n.**, *appendicifer* (type) New Guinea p. 218, *impressipennis* Sumatra p. 219 **spp. n.**, Wittmer Ann. Mag. nat. Hist. (12) **6.**

Philhedonus vredenburgensis S. Africa p. 92, *nigriventris* S.W. Africa p. 93 **spp. n.** figs., Wittmer Proc. R. ent. Soc. Lond. (B) **22.**

Pseudocolotes inlateralis **sp. n.** Madagascar p. 344, Pic Mém. Inst. sci. Madagascar (A) **3** 1949.—*P.*

lateluteus **sp. n.** Fr. Sudan p. 1529, PIC Bull. Inst. franç. Afr. noire **15.**

Sphinginopalpus latithorax **sp. n.** Senegal p. 500, PIC Bull. Inst. franç. Afr. noire **15.**—*S. wittei* **sp. n.** Belg. Congo p. 1, PIC Bull. Inst. Sci. nat. Belg. **29** no. 14.

Sphinginus canariensis **sp. n.** Canary Is. p. 6 figs., LINDBERG Comment. biol. **13** no. 12.

Troglops alluaudi, panousei **spp. n.** Morocco p. 61, PIC C.R. Soc. Sci. nat. Maroc **1953.**—*T. malkini* **sp. n.** S. Africa p. 282 figs., WITTMER Mitt. schweiz. ent. Ges. **26.**

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Donaldia sinuata **sp. n.** Madagascar p. 253, PIC Mém. Inst. sci. Madagascar (E) **3.**

Haplocnemus grancanariensis **sp. n.** Canary Is. p. 7 figs., LINDBERG Comment. biol. **13** no. 12.—*H. angolanus* **sp. n.** Angola p. 285 figs., WITTMER Mitt. schweiz. ent. Ges. **26.**

Pagurodactylus longicornis **sp. n.** S. Africa p. 286 figs., WITTMER t.c.—*P. pseudoangustissimus* p. 93, *parallelus* p. 94 **spp. n.** S. Africa, WITTMER Proc. R. ent. Soc. Lond. (B) **22.**

Pelecophora hamoni **sp. n.** Reunion I. p. 144, VINSON Bull. Soc. ent. Fr. **58.**

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Cantharis prolifica see *Epicauta strigida* (Meloidae).

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Malthaster venezolanus **sp. n.** Venezuela p. 11, WITTMER t.c.

Malthinus pondolandicus **sp. n.** S. Africa p. 85, WITTMER Proc. R. ent. Soc. Lond. (B) **22.**—*M. theryi* **var. n.** *longevittatus*; *brevior* **var. n.** *kocheri* Morocco p. 117, PIC C.R. Soc. Sci. nat. Maroc **1953.**

Malthodes tetraglyphis **sp. n.** Italy p. 130 figs., HICKER in MANDL Studi trentini **30.**

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Adoceta longipennis **sp. n.** Fernando Po p. 156 fig., PIC Bull. Inst. franç. Afr. noire **15.**

Caenioxylobanus discithorax **sp. n.** Madagascar p. 254, PIC Mém. Inst. sci. Madagascar (E) **3.**

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Lycus (*Acantholycus*) *miokoensis*, (*A.*) *mokanus* p. 152, *subgibbulus, subopacus* p. 154, (*Lopholycus*) *dekeyseri*, (*Haplolycus*) *lepesmei* p. 155 **spp. n.** Fernando Po figs., PIC t.c.

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Stadenus villiersi **sp. n.** Fernando Po p. 156 fig., PIC Bull. Inst. franç. Afr. noire **15.**

Xylobanus flabellatus **sp. n.** Madagascar p. 255, PIC Mém. Inst. sci. Madagascar (E) **3.**

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Photuris bethaniensis **sp. n.** Delaware p. 36, MCDERMOTT Proc. U.S. nat. Mus. **103** no. 3314.

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Selasia bicolor **sp. n.** S. Africa p. 85, WITTMER Proc. R. ent. Soc. Lond. (B) **22.**

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Drapetes parallelus **sp. n.** Arizona p. 100, VAN DYKE Pan-Pacif. Ent. **29.**

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Dromaeolus peninsularis **sp. n.** Lower California, Mexico p. 103, VAN DYKE Pan-Pacif. Ent. **29.**

ELATERIDAE
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EUDICRONYCHIDAE).

Chronological summary of data on proper concept of several genera of Elateridae, and synonomy, LANE Proc. ent. Soc. Wash. **55** : 86–89.

Adelocera murinus discussed p. 6, ARNETT Coleopt. Bull. **7.**

Agriotes criticism of characters of subgen. *Agriodrastus* pp. 49, 50, ROUBAL Acta Mus. Siles. (A) **2** 1952.

Anchastus williamsi **sp. n.** Galapagos Is. p. 53, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Conoderus galapagoensis **sp. n.** Galapagos Is. p. 45 fig., VAN DYKE t.c.

Coptostethus longicornis, *vittatus* **spp. n.** Canary Is. p. 7 figs., LINDBERG Comment. biol. **13** no. 12.

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Grammophorus galapagoensis **sp. n.** Galapagos Is. p. 55, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Lacon Cast. (=subgen. *Danosoma* Thoms.) p. 6 ; subgen. *Zalepia* **n. n.** for *Lepidotus* Steph. nec Asso, scope p. 6 ; *punctatus* Hbst. (=*carbonarius* Schr., *pulverulentus* Panz., *atomarius* F.) type of genus p. 5, ARNETT Coleopt. Bull. **7.**

Melanotus brunnipes erroneous use of illustration of larva pp. 552–553, GILYAROV Zool. Zhurn. **32.**

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Patriciella **n. n.** for *Patricia* Van Zwal. nec Fox p. 20, VAN ZWALUWENBURG Proc. Hawaii. ent. Soc. **15.**

Physorhinus dichroa p. 47, *ruficeps* p. 48, *hoodi* p. 49, *blairi* p. 50, *batesoni*, *chathami* p. 51 **spp. n.** Galapagos Is. figs., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Pyrophorus author Billberg not Illiger ; *nyctophanus* Germ. distinct from *noctilucus* L. p. 53 figs., NAVAJAS Arq. Biol. Tecn. **7** 1952.

Synaptus filiformis larva p. 1158 figs., GILYAROV & KURCHEVA Zool. Zhurn. **32.**

Tabula revision of Madagascar spp. pp. 83–86, key p. 83 ; *pauliani* **sp. n.** Madagascar p. 85 figs., MOUCHET Nat. malgache **4** 1952.

Zalepia **subgen. n. n.** for *Lepidotus* Steph. nec Asso (type *varius* Ol.) see *Lacon*.

BUPRESTIDAE.

Buprestidae of flood area of the Niger, DESCARPENTRIES Bull. Inst. franç. Afr. noire **15** : 1566–1568.

Buprestidae of Réserve du Nimba, Fr. Guinea, DESCARPENTRIES 1952 Mém. Inst. franç. Afr. noire no. 19 : 45–48.

Buprestids of USSR (keys p. 11), RIKHTER 1952 Fn. USSR, Insects : Coleoptera **13** no. 4 : 1–234, 47 figs.

Acmaeodera nanbrownae **sp. n.** W. Nevada p. 219 fig., FIGG-HOBLYN

Pan-Pacif. Ent. **29.**—*A. fattigi* **sp. n.** California p. 144 fig., KNULL Ent. News **64.** — *A. palmensis* **sp. n.** Canary Is. p. 8 figs., LINDBERG Comment. biol. **13** no. 12.—*A. cisti* Woll. (=*palmensis* Lindb.) p. 38, COBOS Boll. Ass. romana Ent. **8.**—*A. bryanti* **sp. n.** Texas p. 104, VAN DYKE Pan-Pacif. Ent. **29.**—*A. quadrifasciata* **abb. n.** *labronica*, *mainardii* p. 85, *veternensis*, *lucumonum* p. 86 Italy, *rungsiella* Morocco p. 85, GERINI Boll. Soc. ent. ital. **82.**

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Ancylocheira (*Pseudyamina* p. 31, *Orthocheira* p. 33 **subgenn. n.**), RIKHTER Fn. USSR, Insects: Coleoptera **13** no. 4 1952.

Anthaxia podolica **ab. n.** *gridellii* Hungary p. 66, GERINI Mem. Soc. ent. ital. **31** 1952.—*A. scutellaris* **ab. n.** *mainardii* p. 88; *similis* **ab. n.** *marianii* p. 89 Italy fig., GERINI Boll. Soc. ent. ital. **82.**—*A. negrei* p. 99, *schaeferi* p. 101 **spp. n.** Syria; *marmottani* **subsp. n.** *hispanica* Spain, N. Africa p. 103 fig., COBOS Boll. Soc. ent. ital. **83.**—*A. rugicollis* Lucas (=*r.* subsp. *atlantica* Obenb.) p. 37, COBOS Boll. Ass. romana Ent. **8.**

Buprestis (*Cypriacis*) *splendens* F. a valid sp. pp. 27–33 figs., COBOS t.c. —*B. zayasi* **sp. n.** Cuba p. 329 fig., FISHER Mem. Soc. cubana Hist. nat. **21.**—*B. cupressi* **ab. n.** *labronica*; *octoguttata* **ab. n.** *fiorii* Italy p. 87, GERINI Boll. Soc. ent. ital. **82.**—*B. haemorrhoidalis* **ab. n.** *grandii* Italy p. 46, GERINI op. cit. **83.**

Capeneria **subgen. n.** (type *obesulus* sp. n.) see *Paracylindromorphus*.

Capnodis tenebrionis characters p. 62, FÉRON Bull. Soc. ent. Fr. **58.**—*C. jacobsoni* **sp. n.** Turkmenia p. 159, RIKHTER Fn. USSR, Insects: Coleoptera **13** no. 4 1952.

Chakriia aurofasciatus Saund. (=*ruficolla* Tong.), *cupreomarginatus* Saund. (=*prachadhipoka* Tong.) from *Melibaeus* p. 49, TONGYAI Nat. Hist. Bull. Thailand Res. Soc. **13** 1942.

Chalcophorella (*Rossiella*) *fabricii* **ab. n.** *bipunctata* Italy p. 86, GERINI Boll. Soc. ent. ital. **82.**

Chrysobothris williamsi **sp. n.** Galapagos Is. p. 56 fig., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.—*C. yucatanensis* **sp. n.** Mexico p. 104, VAN DYKE Pan-Pacif. Ent. **29.**

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Cyphosoma luristanicum **sp. n.** W. Persia p. 173, RIKHTER Fn. USSR, Insects: Coleoptera **13** no. 4 1952.

Dicerca fritillum see *Hemidicerca*.

Hemidicerca **gen. n.** for *Dicerca fritillum* Mén. p. 132, RIKHTER Fn. USSR, Insects: Coleoptera **13** no. 4 1952.

Hippomelas insularis **sp. n.** p. 34 (with **subsp. n.** *castanea* p. 36) California, HELFER Pan-Pacif. Ent. **29.**

Julodis revision of Spanish spp. pp. 1–16; *onopordi* **abb. n.** *filabrense*, *cartagenensis* p. 12; *o.* **var. n.** *obesa* p. 15 Spain figs., COBOS Bull. Inst. Sci. nat. Belg. **29** no. 12.

Lampra monograph of Palaearctic spp. pp. 279–374 (key p. 288); *cupreosplendens* **subsp. n.** *miribella* China; *c. kerremansi* **ab. n.** *sauteri* Formosa p. 319; *croesus* **ab. n.** *himalayensis* Himalaya p. 320; *balcanica* **ab. n.** *junctella* Balkans, **var. n.** *ottomana* Asia Minor etc. p. 322; *festiva* **ab. n.** *mařani* France p. 327; *virgata* **ab. n.** *aurolimbata* Siberia etc., **subsp. n.** *beata* Manchuria p. 329; *iranica* Persia p. 333, *podolica* Russia, Caucasus p. 335, *integripennis* p. 341, *charbinensis* p. 367, *semenoviella* p. 368 Manchuria, *generosa* China p. 342,

djingischani Siberia, Korea, China p. 343 **spp. n.**; *pretiosa* **ab. n.** *hochhuti* Kiachta p. 340; *solieri* **ab. n.** *laportei* Spain p. 347; *chinganensis* **ab. n.** *sevastjanovi* Ussuri p. 353; *gloriosa* **abb. n.** *satanas*, *integra* Asia Minor etc. p. 359; *decipiens* **ab. n.** *aurora*, **var. n.** *gloriossioides* Bulgaria, Algeria p. 362 figs., OBENBERGER Acta ent. Mus. nat. Pragae **27** 1952 no. 393.—*L.* revision of *rutilans-bellula* group in Japan, Korea and Manchuria pp. 67–82; *chinganensis* **subsp. n.** *nipponensis* Japan p. 79; *pretiosa* **var. n.** *satoi* Manchuria; *kamikochiana* **var. n.** *esakii*; *nobilissima* **subsp. n.** *inexspectata* p. 80; *bellula* **varr. n.** *agumai*, *hasegawai* p. 81 Japan figs., KUROSAWA Bull. nat. Sci. Mus., Tokyo no. 32.—*L. lukjanovitshi* **sp. n.** S. W. Transbaikalia p. 72, RIKHTER Fn. USSR, Insects: Coleoptera **13** no. 4 1952.

Mastogenius galapagoensis p. 57, *cuneaticollis* p. 58 **spp. n.** Galapagos Is., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Melanophila picta decastigma **ab. n.** *sardoa* Sardinia p. 87 fig., GERINI Boll. Soc. ent. ital. **82.**

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Philanthaxia rufomarginata Saund. (=*purpuriceps* S.) p. 49, TONGYAI Nat. Hist. Bull. Thailand Res. Soc. **13** 1942.

Pseudyamina **subgen. n.** (type *variegata* Kl.) see *Ancylocheira.*

Sphenoptera orthoglypta **sp. n.** Morocco p. 208, ANTOINE Rev. franç. Ent. **20.**

Trachykele blondeli **subsp. n.** *cupreomarginata* California p. 176, HELFER Pan-Pacif. Ent. **29.**

TENEBRIONIDAE (BORIDAE, RHYSOPAUSSIDAE, TRETOTHORACIDAE).

Morphology of some Platyscelinae larvae, DIZER Zool. Zhurn. **32**: 457–466, 3 figs.

Tenebrionids collected in the Sahara 1950–51, ESPAÑOL C. Bull. Soc. Sci. nat. Maroc **31**: 287–312, 8 figs.

Helopinae of Spanish Morocco, ESPAÑOL COLL Eos **29**: 71–83.

Catalogue of Tenebrionidae of Arabia, GRIDELLI Atti Mus. Stor. nat. Trieste **19**: 1–70, 1 pl. 1 fig.

Tenebrionidae of southern Africa, XIV, KOCH Ann. hist.-nat. Mus. hung. (N.S.) **3**: 137–181, 2 pls. 2 figs.

Tenebrionidae of southern Africa, XXI, KOCH Ann. Transv. Mus. **22**: 231–252, 8 figs.

Tenebrionidae of southern Africa, XI, KOCH Proc. R. ent. Soc. Lond. (B) **22**: 155–163, 14 figs.

Tenebrionidae of southern Africa, XVII, KOCH Publ. cult. Cia Diamant. Angola no. 16: 63–96, 28 figs.

Tenebrionidae of southern Africa, III, KOCH Rev. Zool. Bot. afr. **47**: 1–30, 19 figs.

Adesmia (*Adesmina*) *arabica* **f. n.** *thesigeri* Arabia p. 32, GRIDELLI Atti Mus. Stor. nat. Trieste **19.**

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Ammogiton peltieri **subsp. n.** *jolyi* Sahara p. 296 fig., ESPAÑOL C. Bull. Soc. Sci. nat. Maroc **31.**

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Amphithrix **gen. n.** (Opatrini) p. 306, *peyerimhoffi* **sp. n.** Sahara p. 309 figs., ESPAÑOL C. Bull. Soc. Sci. nat. Maroc **31.**

Anethas barnardi p. 145, *multicostata* p. 149, *adamantina* p. 151 S. Africa, *pauliani* Madagascar p. 147 **spp. n.**; key to Madagascan and S. African spp. p. 151 figs., FERREIRA Nat. malgache **4** 1952.

Blaps fortesculpta **sp. n.** Yemen p. 55 figs., GRIDELLI Atti Mus. Stor. nat. Trieste **19**.—*B. tenuicollis, cribrosa* early stages p. 262 figs., KAUFMANN Bull. Res. Counc. Israel **3**.

Bolitophagus borbonicus see *Rhipidandrus*.

Cherostus fungivorus see *Rhipidandrus borbonicus*.

Cnemeplatiini **trib. n.** p. 117, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3**.

Colpotus revision of W. Mediterranean spp. (key p. 140) pp. 123–142; *similaris* **subsp. n.** *nevadensis* p. 138; *cobosi* **sp. n.** p. 139 Spain figs., ESPAÑOL COLL Eos **29**.

Cossyphus hoffmannseggi **var. n.** *sublaevis* p. 66; *minutissimus* **var. n.** *punctatostriatus* p. 67 Morocco, KOCHER Trav. Inst. sci. chérifien no. 7. —*C. hoffmannseggi* **subsp. n.** *bletoni* Morocco p. 211; key to Moroccan spp. p. 212 figs., ANTOINE Rev. franç. Ent. **20**.

Crypticus latihumeralis, amaroides **spp. n.** Canary Is. p. 9 figs., LINDBERG Comment. biol. **13** no. 12.

Cryptochile multicostata **sp. n.** Tanganyika p. 157; *elegans* Gerst. (=*sordida* Gerst.); *patrizii* Grid. a subsp. of *elegans* p. 159 figs., KOCH Proc. R. ent. Soc. Lond. (B) **22**.

Cychrochile **gen. n** (nr. *Epipagus*)' *erodioides* **sp. n.** Bechuanaland p. 160 figs., KOCH t.c.

Cylindronotus piliger, rufipes **spp. n.** Canary Is. p. 10 figs., LINDBERG Comment. biol. **13** no. 12.—*C.* (*Omaleis*) *pardoi* **sp. n.** Sp. Morocco p. 75 fig., ESPAÑOL COLL Eos **29**.

Diaclina gracilis Fahr. (=*ovalis* Geb.) from *Stomylus* p. 22, KOCH Rev. Zool. Bot. afr. **47**.

Distretus (*Perdistretus* **subgen. n.**) *vilhenai* p. 65, (*P.*) *mormolyce* p. 68, (*P.*) *duartei* p. 70, (*P.*) *strioliceps* p. 71, (*P.*) *angolanus* p. 72, (*P.*) *auritus* p. 73 **spp. n.** Angola figs., KOCH Publ. cult. Cia Diamant. Angola no. 16.

Eurycaulus reymondi **sp. n.** Sahara p. 303 fig., ESPAÑOL C. Bull. Soc. Sci. nat. Maroc **31**.

Glabrasida timhaditensis **f. n.** *pulvisculosa* Morocco p. 211, ANTOINE Rev. franç. Ent. **20**.

Gonopus (*G.*) *conpachysoma* **sp. n.** Namaqualand p. 231 figs., KOCH Ann. Transv. Mus. **22**.

Hanstroemium adelostomoide **subsp. n.** *bicornutum* p. 91; *laevifrons* **sp. n.** p. 92 Angola figs., KOCH Publ. cult. Cia Diamant. Angola no. 16.

Hegeter brevicornis **sp. n.** Canary Is. p. 9 figs., LINDBERG Comment. biol. **13** no. 12.

Himatismus (*Curimosphena*) *rileyi* **sp. n.** Uganda p. 155 figs., KOCH Proc. R. ent. Soc. Lond. (B) **22**.

Hionthisoma occidentalis **subsp. n.** *grandis* Sahara p. 288 fig., ESPAÑOL C. Bull. Soc. Sci. nat. Maroc **31**.

Huilamus **gen. n.** (Molurini) p. 79, *welwitschi* **sp. n.** Angola p. 80 fig., KOCH Publ. cult. Cia Diamant. Angola no. 16.

Leucolaephus arabicus see *Paraplatyope*.

Machlasida variesculpta **subsp. n.** *tazultense* Morocco p. 63, KOCHER Trav. Inst. sci. chérifien no. 7.

Micipsa princeps **subsp. n.** *occidentalis* Sahara p. 291 fig., ESPAÑOL C. Bull. Soc. Sci. nat. Maroc **31**.

Mitotagenia gridellii **subsp. n.** *occipitalis* Angola p. 151 figs., FERREIRA Nat. malgache **4** 1952.

Oogeton makii **sp. n.** Formosa p. 412 figs., MIWA Zool. Mag., Tokyo **51** 1939.

Ossiporis systematic position p. 2; key to African spp. p. 3; *taterae* Belg. Congo p. 2, *undulicostis* p. 6, *marshalli* p. 24 S. Rhodesia, *capeneri* Transvaal p. 7, *crenulimargo* N. Rhodesia p. 26 **spp. n.**; *terrena* **subspp. n.** *rhodesiana* S. Rhodesia p. 8, *chubbi* Natal p. 25, *zoutpansbergensis* Transvaal p. 28 figs., KOCH Rev. Zool. Bot. afr. **47**.—*O. angolensis* **sp. n.** Angola p. 86 fig., KOCH Publ. cult. Cia Diamant. Angola no. 16.

Oterophloeus scuticollis Fairm. from *Tentyria* p. 289 fig., ESPAÑOL C. Bull. Soc. Sci. nat. Maroc **31**.

Oxycara lavocati **sp. n.** Sahara p. 294 fig., ESPAÑOL C. t.c.—*O.* (*O.*) *sanaaense* **sp. n.** Yemen p. 30 fig., GRIDELLI Atti Mus. Stor. nat. Trieste **19.**

Pachychila grandis subsp. *gravida* **f. n.** *thomasi* Morocco p. 210, ANTOINE Rev. franç. Ent. **20.**

Paracirta peyerimhoffi **subsp. n.** *daourensis* Sahara p. 293 fig., ESPAÑOL C. Bull. Soc. Sci. nat. Maroc **31.**

Paraguania **gen. n.** (nr. *Trimytis*), *relicta* **sp. n.** (with **subsp. n.** *continentis* p. 33) Venezuela p. 31 figs., MARCUZZI Mem. Mus. civ. Stor. nat. Verona **3** 1951–52 [? 1953].

Paraplatyope **gen. n.** for *Leucolaephus arabicus* Blair (type) p. 45; *thesigeri* **sp. n.** Arabia p. 47, GRIDELLI Atti Mus. Stor. nat. Trieste **19.**

Parastizopus key to *diehli* group; *lithopsophilus* p. 235, *transgariepinus* p. 236 **spp. n.** Namaqualand figs., KOCH Ann. Transv. Mus. **22.**

Pedonoeces venmani p. 100, *culpepperi* p. 102, *blairi* p. 103, *caudatus* p. 104, *apicalis*, *uniformis* p. 105, *spatulatus* p. 108, *barringtoni* p. 109, *duncani* p. 110, *williamsi* p. 112, *opacus* p. 114 **spp. n.** Galapagos Is. figs., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Perdistretus **subgen. n.** (type *vilhenai* sp. n.) see *Distretus.*

Phanerotoma lanceolatum **sp. n.** Namaqualand p. 177 figs., KOCH Ann. hist.-nat. Mus. hung. (N.S.) **3.** —*P. argenteofasciatum* **sp. n.** Angola p. 82 fig., KOCH Publ. cult. Cia Diamant. Angola no. 16.

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Physophrynus kaszabi **sp. n.** Tanganyika p. 176 figs., KOCH Ann. hist.-nat. Mus. hung. (N.S.) **3.**

Pimelia (*P.*) *atlantis* **subsp. n.** *kumshensis* Morocco p. 211 fig., ANTOINE Rev. franç. Ent. **20.**

Platydema L. & B. (=*Proselytus* Fahr.); *inaequidens* subsp. *diluticorne* Geb. (=*Stomylus nitidulus* Fahr.) p. 30, KOCH Rev. Zool. Bot. afr. **47.**—*P. metallicicolle* **sp. n.** Madagascar p. 264, PIC Mém. Inst. sci. Madagascar (E) **3.**

Plesiophthalmus formosanus **sp. n.** Formosa p. 412 figs., MIWA Zool. Mag., Tokyo **51** 1939.

Prateus dentatus **sp. n.** Galapagos Is. p. 119, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Probaticus (*Helopostygnus*) *confinalis* **subsp. n.** *kertensis* Sp. Morocco p. 78 fig., ESPAÑOL COLL Eos **29.**

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Psammolophus **subgen. n.** (type *acuticosta* Fairm.) see *Psammophanes.*

Psammophanes (*Psammotyriopsis* p. 144, *Psammostretus* p. 145, *Psammophrynus* p. 146, *Psammolophus* p. 154, *Somalarabes* p. 155, *Psammophrynopsis* p. 157 **subgenn. n.**); (*Psammotyr–*) *bredoi* N. Rhodesia p. 144, (*Psammostr–*) *punctipilus* p. 149, (*Psammostr–*) *erectepilosus* (with **subsp. n.** *tanganyikanus* Tanganyika) p. 150 Belg. Congo, (*Psammostr–*) *maculicollis* p. 150, (*Psammostr–*) *circumscriptus* p. 151, (*Psammophrynus*) *jokli* (also Tanganyika) p. 152 N. Rhodesia, (*Psammophrynus*) *poccilator*, (*Psammophrynus*) *penicillatus* (with **subsp. n.** *placatus* p. 154) p. 153 Belg. Congo, (s. str.) *somalicus* Somaliland, (s. str.) *densepunctatus* p. 158, (s. str.) *granuliger* p. 159, (s. str.) *kilimandjarus* p. 174 Tanganyika, (s. str.) *praetenuis* (with **subsp. n.** *subtomentosus* Eritrea p. 166) p. 163, (s. str.) *plicatoides*, (s. str.) *gridellii* (with **subsp. n.** *microsetosus* p. 165) p. 164 Abyssinia, (s. str.) *leakeyi* p. 171, (s. str.) *nairobiensis* Br. E. Africa, (s. str.) *borosi* N. Rhodesia, Belg. Congo p.

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Psammophrynus **subgen. n.** (type *jokli* sp. n.) see *Psammophanes.*

Psammostretus **subgen. n.** (type *bisbicostatus* Geb.) see *Psammophanes.*

Psammotyria **subgen. n.** (type *ertli* Kolbe) see *Psammodes.*

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Rhipidandrus borbonicus Fairm. (=*Cherostus fungivorus* Vins.) from *Bolitophagus* p. 145, VINSON Bull. Soc. ent. Fr. **58.**

Sabularius punctatostriatus p. 214, *kocheri* p. 215 (with **var. n.** *cephalotes* p. 217) **spp. n.** Morocco figs., ANTOINE Rev. franç. Ent. **20.**

Scaurus gimeli **sp. n.** Morocco p. 59, ANTOINE C.R. Soc. Sci. nat. Maroc **1953.**

Scleron sulcatum **subspp. n.** *scotti* Aden p. 58, *lomii* Italian Somaliland p. 59, GRIDELLI Atti Mus. Stor. nat. Trieste **19.**

Somalarabes **subgen. n.** (type *gracilentus* Fairm.) see *Psammophanes.*

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Stenomax baudoni **sp. n.** Morocco p. 213, ANTOINE Rev. franç. Ent. **20.**—*S.* (*Helopocerodes*) *marteni* **sp. n.** Sp. Morocco p. 73 fig., ESPAÑOL COLL Eos **29.**

Stenosis costulata **var. n.** *ecostata* Arabia p. 42, GRIDELLI Atti Mus. Stor. nat. Trieste **19.**

Stomion galapagoensis **subsp. n.** *punctipennis* p. 72; *obesum* p. 74, *cribricollis* p. 75, *longulum* p. 76, *longicornis* p. 79, *rugosum* p. 80 **spp. n.** Galapagos Is. figs., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Stomylus Fahr. (=*Pselaphidion* Geb.) p. 23, KOCH Rev. Zool. Bot. afr. **47.**—*S. gracilis* see *Diaclina*; *nitidulus* see *Platydema inaequidens* subsp. *diluticorne.*

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Cacoplesia pauliani, *viridicollis* **spp. n.** Madagascar p. 261, PIC Mém. Inst. sci. Madagascar (E) **3.**

Cistelampra luteipennis **sp. n.** Madagascar p. 261, PIC t.c.

Heliosthraema reymondi **sp. n.** Morocco p. 62, PIC C.R. Soc. Sci. nat. Maroc **1953.**

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Derolagria nigricolor Fernando Po p. 162, *bicolor* Fr. Guinea p. 498 **spp. n.** fig., Pic Bull. Inst. franç. Afr. noire **15**.

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Lopholagria (*Mokalagria* **subgen. n.**) *angustata* **sp. n.** Fernando Po. p. 163 fig., Pic Bull. Inst. franç. Afr. noire **15**.

Lophophyllus bicolor **sp. n.** Madagascar p. 260, Pic Mém. Inst. sci. Madagascar (E) **3**.

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Osphya bipunctata **abb. n.** *femoralis, marginata, lateralis, limbata, thoracica* Hungary, *anteapicalis* Slovakia p. 118, Csiki Ann. hist.-nat. Mus. hung. (N.S.) **3**.

Phloeotrya brevicornis Brazil, *subcostulata* Irkutsk **spp. n.** p. 335, Pic Ann. Mag. nat. Hist. (12) **6**.

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Tetratoma ancora **ab. n.** *circumcincta* Hungary p. 118 fig., Csiki Ann. hist.-nat. Mus. hung. (N.S.) **3**.

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Oedemera kocheri ♂ (with **var. n.** *nigra* Morocco) p. 51, Kocher Trav. Inst. sci. chérifien no. 7.

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Meloidae of Afghanistan, KASZAB Vidensk. Medd. dansk naturh. Foren. Kbh. **115**: 305–311.

Actenodia peringueyi **n. n.** for *jucunda* Pér. nec Er. p. 499; *p.* **var. n.** *biseptemmaculata* Transvaal p. 500, PIC Bull. Inst. franç. Afr. noire **15.**

Alosimus robustus var. *théryi* Pic (=*tenuicornis* var. *kocheri* Pic) p. 55, KOCHER Trav. Inst. sci. chérifien no. 7.

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Cylindrothorax brittoni Arabia p. 857, *prasina* p. 859, *zavattarii*, *amethystina* p. 860 Somaliland **spp. n.**; *angusticollis* **subsp. n.** *rufiventris* Abyssinia; *sudanica* **var. n.** *nigripennis* Kenya p. 858; *leucophthalma* **subsp. n.** *bipallida* Arabia p. 861, KASZAB Ann. Mag. nat. Hist. (12) **6.**—*C. politicollis* Fairm., *bifoveiceps* Fairm. (and varr. *babaulti* Pic, *semiviridis* Pic), *caerulescens* Pic and some other spp. (in *Epicauta* in Borchmann Col. Cat. pars 69) from *Epicauta* pp. 483–484, KASZAB Acta biol., Budapest **4.**

Decapotoma csikii **sp. n.** S.W. Africa p. 78, KASZAB Ann. S. Afr. Mus. **41.**

Epicauta revision of Ethiopian spp. (key p. 484, catalogue p. 511) pp. 481–513; *nigrilabris* Pic (=*Psalydolytta tristis* Borchm.), *villosa* F., *hemicrania* Mars., *cinctifrons* Mars. from *P.* p. 483; *strigida* Mars. (=*Cantharis prolifica* Wellm.); *elunda* Wellm. an ab. of *strigida* not *prolifica*; *subrufocincta* Pic a sp., not var. of *bilineata*; *brachycera* Wellm. a sp., not var. of *brevipennis*; *designata* Pér. a sp., not var. of *oculata* F.; *grandiceps* H.-R. (=*tomentosa* var. *mäklini* Gred.); *obscurepubens* Pic an ab. of *albotrivittata* not var. of *canescens* p. 484; *székessyi* Belg. Congo p. 494, *kovácsi* Abyssinia p. 496, *lineata* p. 498, *rufotrimaculata* p. 502, *kulzeri* (also Rhodesia) p. 503 E. Africa, *bioculata* (with **subspp. n.** *luluana* p. 505, **ab. n.** *kapangana*, *dewittei* p. 506 Belg. Congo, *intermedia* N.W. Rhodesia, *hajekae* Port. E. Africa p. 507, *quadrioculata* Angola, *elgonensis* Uganda p. 508) Cameroons p. 504 **spp. n.**; *velata* **var. n.** *corintae* p. 497; *moesta* **subspp. n.** *nyansana* E. Africa, *basilewskyi* Belg. Congo p. 499; *designata* **abb. n.** *ertli* E. Africa, S. Rhodesia etc., *péringueyi* Rhodesia, Transvaal p. 500, *breyeri* Rhodesia, S.W. Africa p. 501; *strigida* **subspp. n.** *kochi* p. 508, *interna* p. 509, *katangana* Belg. Congo; *lindiana* **subsp. n.** *lorata* Angola p. 510; *albotrivittata* re-description p. 495, KASZAB Acta biol., Budapest **4.**—*E. pseudocallosa* p. 387, *pallidilabra* p. 390, *cazieri* p. 394, *pseudosolani* p. 395, *hesitata* p. 398, *innomina* p. 401, *murinoides* p. 409, *luteola* p. 411, *reinhardi* p. 413, *macroflexi* p. 414 **spp. n.** Texas, DILLON Amer. midl. Nat. **48** 1952.—*E. politicollis*, *bifoveiceps* (and varr. *babaulti*, *semiviridis*), *caerulescens* and some other spp. (in *Epicauta* in Borchmann Col. Cat. pars 69) see *Cylindrothorax*; *elegantula*, *enona*, *spilotella* see *Lytta*; *atricolor* see *Macrobasis cinerea*; *stuarti* see *Maculicauta*.

Euzonitis quatuorpunctata ab. *pilleri* **n. n.** for *immaculata* Escher. nec Ol. and *concolor* Wellm. nec Ab. p. 118, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**

Gnathium politum **sp. n.** Texas p. 332, DILLON Amer. midl. Nat. **48** 1952.

Iselma lanuginosa p. 61, *simillima* p. 62, *analis*, *hessei* p. 63, *csikii* p. 64 **spp. n.** S. Africa; key to S. African spp. p. 65, KASZAB Ann. S. Afr. Mus. **41.**

Lytta key to S. African spp. p. 74; *namaqua* p. 75, *rubrolineata* p. 76, *székessyi* p. 77 **spp. n.** S.W. Africa, KASZAB t.c.—*L. elegantula* Pér., *enona* Pér., *spilotella* Pér. from *Epicauta* p. 484, KASZAB Acta biol., Budapest **4.**

Macrobasis cinerea F. (=*Epicauta atricolor* Pic) p. 483, KASZAB t.c.

Maculicauta **gen. n.** for *Epicauta stuarti* Lec. p. 416, DILLON Amer. midl. Nat. **48** 1952.

Meloe kirbyi **n. n.** for *niger* Kby. nec Deg.; *texananus* p. 371, *paropacus* p. 372 **spp. n.** Texas, DILLON t.c.—*M. proscarabaeus* ab. *cyanescens* **n. n.** for *cyaneus* Muls. nec F. p. 117, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**—*M. proscarabaeus* **subsp. n.** *afghanistanicus* Afghanistan p. 310, KASZAB Vidensk. Medd. dansk naturh. Foren. Kbh. **115.**

Mylabris shah **subsp. n.** *tuxeni*; *syriaca* **subsp. n.** *panjaoensis* p. 306; *frolovi* **subsp. n.** *afghanica* p. 308; *marakensis* **sp. n.** p. 309 Afghanistan, KASZAB t.c.—*M. pustulata* egg p. 128 figs., DEOBHAKTA Agra Univ. J. Res. (Sci.) **2.**

Nemognatha pallens Lec. (=*lutea* Lec.) p. 336; *piezata* F. (=*punctulata* Lec.) p. 337; *brunneopennis* **sp. n.** Texas p. 341, DILLON Amer. midl. Nat. **48** 1952.—*N. haemorrhoidalis* F. from *Cyaneolytta* p. 82, KASZAB Ann. hist.-nat. Mus. hung. (N.S.) **4.**—*N. chrysomelina* **ab. n.** *immaculipennis* Morocco p. 59, KOCHER Trav. Inst. sci. chérifien no. 7.

Psalydolytta lineaticollis p. 1532, *remaudierei* p. 1533 **spp. n.** Fr. Sudan figs., PIC Bull. Inst. franç. Afr. noire **15.**—*P. villosa*, *nigrilabris*, *hemicrania*, *cinctifrons* see *Epicauta*; *tristis* see *E. nigrilabris*.

Pseudozonitis **gen. n.** for *Zonitis longicornis* Horn (type), key to spp. p. 342; *vogti*, *roseomaculatis* p. 343,

pallidus p. 344, *castaneis* p. 345 **spp. n.** Texas fig., DILLON Amer. midl. Nat. **48** 1952.

Pyrota engelmanni Lec. (=*terminata* Lec.); *perversa* p. 359, *victoria* p. 365 **spp. n.**; *lineata* **subsp. n.** *texana* p. 364 Texas, DILLON t.c.

Sitaris bushmanica **sp. n.** Cape Province p. 71, KASZAB Ann. S. Afr. Mus. **41.**

Stenoria discomaculata p. 72, *hessei* p. 73 **spp. n.** Cape Province, KASZAB t.c.

Zonabris tenebrosa **varr. n.** *septemnotata, oberthuri* p. 498, *diverseluteonotata, pauloluteofasciata*; *variabilis* **var. n.** *lambaesis* p. 499 Algeria, PIC Bull. Inst. franç. Afr. noire **15.**

Zonitis praeusta ab. *metasternalis* **n. n.** for *flava* Tausch. nec F. p. 117, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**—*Z. longicornis* see *Pseudozonitis.*

Zonitomorpha costata **sp. n.** S.W. Africa p. 68; *sellata* **abb. n.** *stevensoni, pectoralis, fahraeusi* (also Natal), *unipunctata* p. 69, *rhodesiana, testacicornis, unicolor* p. 70 S. Rhodesia, *seminigripennis* Zululand, *nigricornis* Natal, *nigricolor* S.W. Africa p. 69, KASZAB Ann. S. Afr. Mus. **41.**

CEPHALOIDAE.

Review of Cephaloidae, ARNETT Proc. U.S. nat. Mus. **103** no. 3321: 155–161, 12 figs.

Cephaloon Newm. (=*Ephamillus* Sem.); *bicolor* Horn (=*Drachylis simulans* Casey); key p. 159 figs., ARNETT Proc. U.S. nat. Mus. **103** no. 3321.

Drachylis simulans see *Cephaloon bicolor.*

Ephamillus see *Cephaloon.*

Stenocephaloon Pic transferred to Melandryidae, q.v.

MORDELLIDAE.

Mordellidae of Shikoku, Japan, CHÛJÔ & NAKANE Mushi **25**: 17–24, 1 pl.

Some Mordellidae of Belg. Congo, ERMISCH Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **22**: 1–105, 21 figs.

Anaspella antennata **sp. n.** Egypt p. 251 figs., FRANCISCOLO Bull. Soc. Fouad 1er Ent. **37.**

Anaspis (*Silaria*) *mitchyi* p. 22, (*S.*) *hayashii* p. 23 **spp. n.** Japan figs., CHÛJÔ & NAKANE Mushi **25.**

Caffromorda **gen. n.** p. 66, *platycephala* **sp. n.** S. Africa p. 67 figs., FRANCISCOLO Boll. Soc. ent. ital. **82** 1952.

Fahraeusiella **gen. n.** for *Mordellistena moerens* Fåhr. p. 316; *m.* redescription p. 318 figs., ERMISCH Ark. Zool. (N.S.) **5.**

Glipa fahraei (from *Mordella*) redescription p. 298 fig., ERMISCH t.c. —*G. latepyga* p. 20, *basilewskyi* p. 28 **spp. n.** Belg. Congo figs., ERMISCH Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **22.**

Glipostena congoana **sp. n.** Belg. Congo p. 84 figs., ERMISCH t.c.

Glipostenoda brunnescens p. 86, *desaegeri* p. 88, *multistrigosa* p. 89 **spp. n.** Belg. Congo figs., ERMISCH t.c. —*G. pulla* Fåhr. (from *Mordella*) p. 307, *cinnamomea* Fåhr. (from *Mordellistena*) p. 309 re-descriptions figs., ERMISCH Ark. Zool. (N.S.) **5.**

Hoshihananomia schoutedeni p. 12, *olbrechtsi* p. 14, *tristis* p. 17 **spp. n.** Belg. Congo figs., ERMISCH Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **22.**

Mordella fahraei see *Glipa*; *lugubris* see *Neocurtimorda*; *caffra* see *Pseudomordella*; *propinqua* see *P. caffra*; *pulla* see *Glipostenoda.*

Mordellistena (*M.*) *nigropectoralis* p. 62, (*M.*) *congoana* p. 64, (*M.*) *pygmaea* p. 66, (*M.*) *senilis* p. 67, (*M.*) *luteoapicipennis* p. 69, (*M.*) *similaris* p. 73, (*M.*) *fuscocastanea* p. 74, (*Pseudomordellina*) *luteicornis* p. 76, (*P.*) *divergens* p. 78, (*P.*) *longipennis* p. 79, (*P.*) *piciventris* p. 81, (*P.*) *atrocephala* p. 82 **spp. n.** Belg. Congo figs., ERMISCH Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **22.**—*M. reichei* **ab. n.** *nigripes* Hungary pp. 197, 478, KASZAB & SZÉKESSY in SZÉKESSY Bátorliget élövilága.—*M. pygidialis* **sp. n.** Madagascar p. 344, PIC Mém. Inst. sci. Madagascar (A) **3** 1949.—*M. postdiscoidalis* **var. n.** *longevittata* Madagascar p. 272, PIC op. cit. (E) **3.**—*M. galapagoensis* **sp. n.** Galapagos Is. p. 44, VAN DYKE

Occ. Pap. Calif. Acad. Sci. no. 22.—*M. cinnamomea* see *Glipostenoda*; *inconstans* see *Stenalia*; *moerens* see *Fahraeusiella*; *atriventris* see *Pseudomordellistena*.

Neocurtimorda revision of African spp. (keys p. 112) pp. 109–131; *nakanei* W. Africa p. 115, *aequatorialis* St. Thomé p. 116, *picicornis* p. 118, *perpusilla* p. 120, *conformis* p. 121 S.W. Africa, *sexmaculata* p. 124, *rufipalpis* (also S. Rhodesia) p. 125 Transvaal, *monostigma* Natal p. 126, *mordelloides* Zululand p. 128 **spp. n.** figs., Franciscolo Mem. Soc. ent. ital. **31**.—*N. lugubris* Fähr. (from *Mordella*) re-description p. 301 fig., Ermisch Ark. Zool. (N.S.) **5**.—See *Sphalera*.

Neomordellistena picicolor p. 91, *brédoi* p. 93, *ruficeps* p. 95, *parvula* p. 96, *lestradei* p. 98 **spp. n.** Belg. Congo figs., Ermisch Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **22**.

Paratomoxia hieroglyphica **sp. n.** Belg. Congo p. 8 figs., Ermisch t.c.

Pselaphostena congoana **sp. n.** Belg. Congo p. 32 figs., Ermisch t.c.—*P. fahraei* **sp. n.** S. Africa p. 314 figs., Ermisch Ark. Zool. (N.S.) **5**.

Pseudomordella **gen. n.** for *Mordella caffra* Fähr. (=*M. propinqua* Fähr. p. 306) p. 303; *caffra* re-description p. 304 figs., Ermisch t.c.

Pseudomordellistena (*P.*) *aterrima* p. 48, (*P.*) *fuscobrunnea* p. 50, (*P.*) *nigrispinosa* p. 52, (*P.*) *fuscocastanea* p. 55, (*Mordellina*) *auricapilla* p. 56, (*M.*) *gracilenta* p. 58, (*M.*) *léontovitchi* p. 60 **spp. n.** Belg. Congo; *atriventris* Pic from *Mordellistena* p. 53 figs., Ermisch Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **22**.

Sphalera Lec. (=*Neocurtimorda* Franc.) p. 131 figs., Franciscolo Mem. Soc. ent. ital. **31**.

Stenalia inconstans Fahr. (from *Mordellistena*) re-description p. 311 figs., Ermisch Ark. Zool. (N.S.) **5**.—*S. longipennis* p. 34, *flaviventris* p. 36, *coeruleocephala* p. 40, *flavospinosa* p. 42, *nigrospinosa* p. 43, *flavipennis* p. 45 **spp. n.** Belg. Congo figs., Ermisch Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **22**.

Striganaspella **gen. n.**, *lutea* **sp. n.** Belg. Congo p. 100 figs., Ermisch t.c.

Tolida Muls. status discussed; *artemisiae* Muls. systematic position p. 317 (note), Ermisch Ark. Zool. (N.S.) **5**.

Wittmerimorda **gen. n.** p. 69, *gymnophthalma* **sp. n.** Brazil p. 70 figs., Franciscolo Boll. Soc. ent. ital. **82** 1952.

Rhipiphoridae.

Macrosiagon villiersi **sp. n.** Senegal; *caffrum* **var. n.** *fahraeusi* Natal p. 497, Pic Bull. Inst. franç. Afr. noire **15**.

Stylopidae.

Strepsiptera of Portugal, III, Luna de Carvalho Mem. Estud. Mus. zool. Univ. Coimbra no. 215: 1–9, 8 figs.

Elenchus maorianus **sp. n.** New Zealand p. 5 figs., Gourlay N.Z. Ent. **1** no. 3.

Mengenilla nigritula **var. n.** *quadriarticulata* Portugal p. 2 figs., Luna de Carvalho Mem. Estud. Mus. zool. Univ. Coimbra no. 215.

Pseudoxenos andradei **sp. n.** Portugal p. 3 figs., Luna de Carvalho t.c.

Lamellicornia.

Herold's organ as character distinguishing ♂♂ of Scarabaeid larvae, Hurpin Bull. Soc. ent. Fr. **58**: 104–107, 5 figs.

Lamellicornia of Lake Tanganyika, Janssens 1952 Résult. sci. Explor. hydrobiol. Lac Tanganyika (1946–1947) **3** fasc. 3: 27–37.

Scarabaeid larvae of the USSR (keys p. 34), Medvedev 1952 Opred. Faune SSSR **47**: 1–343, 537 figs.

Passalidae.

Passalidae of El Salvador, Hincks Senckenbergiana **34**: 29–35, 1 fig.

Arrox agassizi Kaup (=*Sertorius assmanni* Kuw.) p. 33, Hincks Senckenbergiana **34**.

Chondrocephalus granulum Kuw. (=*quinquecornutus* Grav., *cordiger* Grav.) p. 33, Hincks t.c.

Leptaulax bicolor **subsp. n.** *birói* New Guinea p. 113 figs., ENDRÖDI Ann. hist.-nat. Mus. hung. (N.S.) **4.**

Oileus aztecus Truqui from *Pseudacanthus* p. 30, HINCKS Senckenbergiana **34.**

Passalus dominicanus **sp. n.** St. Domingo p. 204, VAN DOESBURG Pan-Pacif. Ent. **29.**

Popilius tenuis Kuwert from *Pseudacanthus* p. 203, VAN DOESBURG t.c. —*P. tenuis* Kuw., *orizabae* Kuw., ?*decipiens* Kuw. from *Pseudacanthus* p. 30; *eclipticus* Truqui (=*guatemalae* Grav.) p. 32, HINCKS Senckenbergiana **34.**

Proculejus laevissimus Kaup, *laevior* Kaup from *Pseudacanthus* p. 30; *politus* **sp. n.** El Salvador p. 31 fig., HINCKS t.c.

Pseudacanthus aztecus see *Oileus*; *laevissimus, laevior* see *Proculejus*; *tenuis, orizabae, decipiens* see *Popilius*.

Sertorius assmanni see *Arrox agassizi*.

Vindex sculptilis Bates (=*quadrangulifrons* Kuw.) p. 34, HINCKS Senckenbergiana **34.**

LUCANIDAE.

Illustrated catalogue of Lucanids of World, Atlas ((A) **28** 1952 : 112 pls.), Text ((A) **27** : 1–223, 1 col. frontisp. 136 figs.), DIDIER & SÉGUY Encycl. ent.

Aegus ferentarius Philippines p. 106, *machimus* Sumatra p. 107 **spp. n.** figs., DIDIER & SÉGUY Rev. franç. Ent. **20.**—*A. varigerus* **sp. n.** Borneo p. 55 figs., DIDIER & SÉGUY Encycl. ent. (A) **27.**

Aesalus daghestanicus **sp. n.** Daghestan p. 59 figs., DIDIER & SÉGUY t.c.

Cladognathus tangianus **sp. n.** Assam p. 38 figs., DIDIER & SÉGUY t.c.

Cylloepus key to U.S.A. spp. p. 37; *parkeri* **sp. n.** Arizona p. 38 figs., SANDERSON Coleopt. Bull. **7.**

Eligmodontus kanghianus **sp. n.** Tonkin p. 44 figs., DIDIER & SÉGUY Encycl. ent. (A) **27.**

Eurytrachellelus daedalion **sp. n.** China p. 104 figs., DIDIER & SÉGUY Rev. franç. Ent. **20.**

Figulus manicatus **sp. n.** Tonkin p. 108 figs., DIDIER & SÉGUY t.c.—*F. delislei* **sp. n.** Tonkin p. 30; *acutangulus* characters p. 31 fig., BENESH Coleopt. Bull. **7.**—*F. boninensis* **sp. n.** Bonin Is. p. 110 figs., NAKANE & KUROSAWA Bull. nat. Sci. Mus., Tokyo no. 33.

Hemisodorcus pieli p. 45, *songianus* p. 46 **spp. n.** China figs., DIDIER & SÉGUY Encycl. ent. (A) **27.**

Hexarthrius aduncus ♀ p. 25; *davisoni* characters p. 27 figs., BENESH Coleopt. Bull. **7.**

Lamprina caerulea ♀ p. 26 figs., DIDIER & SÉGUY Encycl. ent. (A) **27.**

Lucanus singularis p. 29, *furcifer* p. 30 characters; *pseudosingularis* **sp. n.** Yunnan p. 31 figs., DIDIER & SÉGUY Rev. franç. Ent. **20.**—*L. cervus* **var. n.** *smyrniacus* Asia Minor p. 29 figs., DIDIER & SÉGUY Encycl. ent. (A) **27.**

Metopodontus javanus **sp. n.** Java p. 40 figs., DIDIER & SÉGUY t.c.

Neolamprima adolphinae **var. n.** *bohni* New Guinea p. 252 fig., DARGE & SÉGUY Rev. franç. Ent. **20.**

Nigidius characters p. 173; key to African spp. p. 174; *carreti* Cameroons p. 176, *hysex* Zanzibar, *medimniensis* Fr. W. Africa p. 179, *mydoni* Ubangi-Shari p. 180 **spp. n.** figs., SÉGUY Rev. franç. Ent. **20.**

Odontolabis parryi **var. n.** *mingianus* Sikkim; *sommeri* **var. n.** *cypri* Kina-Balu p. 37 figs., DIDIER & SÉGUY Encycl. ent. (A) **27.**

Platycerus caerulosus **sp. n.** China p. 55 figs., DIDIER & SÉGUY t.c.

Prosopocoilus cardoni Did. a valid sp. not syn. of *buddha* p. 27, BENESH Coleopt. Bull. **7.**

COPRIDAE.

Scarabaeinae of flood area of the Niger, JANSSENS Bull. Inst. franç. Afr. noire **15** : 1548–1551.

Oniticellini of Parc nat. Upemba, Belg. Congo, JANSSENS Explor. Parc nat. Upemba (1946–1949) fasc. 11 : 1–118, 135 figs.

Revision of Canthoninae of Madagascar, with keys, LEBIS Mém. Inst. sci. Madagascar (E) **3**: 107–252, 127 figs.

Afroharoldius characters p. 344; key to African spp. p. 345; *modestus* p. 346, *leleupi* p. 347 **spp. n.** Belg. Congo figs., JANSSENS Rev. Zool. Bot. afr. **47**.

Apotolamprus ambohitsitondronensis p. 113, *4-maculatus* p. 115, *milloti* p. 116, *4-signatus* p. 119, *rubromaculatus* p. 120 **spp. n.** Madagascar figs., LEBIS Mém. Inst. sci. Madagascar (E) **3**.

Arachnodes alluaudi p. 127, *sicardi* p. 128, *emmae* p. 130, *delphinensis* p. 135, *ruteri* p. 137, *armipes* p. 144, *micheli* p. 145, *delaunayi* p. 149, *vigilans* p. 154, *johanni* p. 157, *semi-punctatus* p. 160, *micans* p. 163, *pusillus* p. 164, *biimpressus* p. 166, *rubrotinctus* p. 167, *jeanneli* p. 170, *angulosus* p. 171, *globulosus* p. 174, *philippi* p. 177, *pierrettae* p. 178, *variolosus* p. 183, *semi-nitidus* p. 188, *seyrigi* p. 190, *didiensis* p. 191, (*Pseudarachnodes* **subgen. n.** p. 123) *semichalceus* p. 194, (*P.*) *abadiei* p. 196 **spp. n.**; *splendidus* **ab. n.** *viridiventris*, **var. n.** *descarpentriesi* p. 135; *oberthüri* **subsp. n.** *parallelicollis* p. 176; *luctuosus* **subsp. n.** *boucomonti* p. 194 Madagascar figs., LEBIS t.c.

Canthon luctuosus, darlingtoni see *Scybalocanthon*.

Dichotomius enrietti **sp. n.** Brazil p. 39 figs., VERNALHA Arq. Biol. Tecn. **7** 1952.

Drepanocerus strigatus Belg. Congo p. 28, *integriceps* Gandchouen p. 34, *schimperi* Abyssinia p. 29, *freyi* Zululand p. 30, *bechynéi* Abyssinia, Br. E. Africa, Fr. Guiana, etc. p. 33, *distinctus* Senegal, Fr. Congo, Belg. Congo etc. p. 39 **spp. n.**; *patrizii* Bouc. (=*arthuri* Bouc.) p. 36; *falsus* Sharp (=*exsul* Sharp) p. 37; *rex* Bouc. (=*arrowi* Balth.) p. 38 figs., JANSSENS Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 11.

Epactoides olsoufieffi p. 201, *pauliani* p. 203, (*Aleiantus*) *hyphydroides* p. 204, (*A.*) *semi-aeneus* p. 207, (*A.*) *convexus* p. 208, (*A.*) *vagecarinatus* p. 209, (*A.*) *lissus* p. 211, (*A.*) *incertus* p. 212 **spp. n.** Madagascar figs., LEBIS Mém. Inst. sci. Madagascar (E) **3**.

Epilissus prasinus **subsp. n.** *antongilensis* Madagascar p. 110 figs., LEBIS t.c.

Euoniticellus **gen. n.** for *Oniticellus fulvus* Goeze (type), *wittei* Janss., *parvus* Kr., *fumigatus* Bouc., *tibatensis* Kolbe, *kawanus* Janss., *nasicornis* Reiche, *intermedius* Reiche, *inaequalis* Reiche, *africanus* Har., *triangularis* Har., *pallipes* F., *pallens* Oliv., *cubiensis* Cast. pp. 9, 41; *zumpti* **sp. n.** Zululand p. 51 figs., JANSSENS Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc.11.

Liatongus medius Fairm. (=*imitator* Balth.); *phanaeoides* Westw. (=*Oniticellus yohenai* Mats.) p. 91; *denticornis* Fairm. (=*boucomonti* Balth. (pars), *semenovi* Balth., *O. concavicollis* Fairm.) p. 92; *fairmairei* Bouc. (=*vseteckai* Balth.) p. 94; *capricornis* Arrow a sp. not var. of *affinis*; *bucerus* Fairm. (=*boucomonti* Balth. (pars)) p. 96; *upembanus* **sp. n.** Belg. Congo p. 99; *tuberculicollis* Felsche (=*O. mobilicornis* Bouc.) p. 101 figs., JANSSENS t.c.

Madateuchus **gen. n.** p. 24, *viettei* **sp. n.** Madagascar p. 25 figs., PAULIAN Mém. Inst. sci. Madagascar (E) **3**.

Nanos bicoloratus p. 218, *parcepunctatus* p. 221 **spp. n.** Madagascar figs., LEBIS Mém. Inst. sci. Madagascar (E) **3**.

Oniticellus pictus **subsp. n.** *orientalis* E. Africa, Belg. Congo p. 109; *formosus* Chevr. (=*parapictus* Balth.) p. 110 figs., JANSSENS Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 11.—*O. fulvus, wittei, parvus, fumigatus, tibatensis, kawanus, nasicornis, intermedius, inaequalis, africanus, triangularis, pallipes, pallens, cubiensis* see *Euoniticellus*; *yohenai* see *Liatongus phanaeoides*; *concavicollis* see *L. denticornis*; *mobilicornis* see *L. tuberculicollis*.

Onthophagus marginifer p. 304, *kindianus, bechynei* p. 305, *lamellicornis* p. 306 **spp. n.** Fr. Guinea; *fumatus* **subsp. n.** *orientalis* Tanganyika p. 308 figs., FREY Ent. Arb. **4**.—*O. verticicornis* **ab. n.** *maculatus*

France p. 42, CLEU Ann. Soc. ent. Fr. **122.**—*O.* study on Polish spp. of *ovatus* group pp. 55–81; *joannae* **sp. n.** Gdańsk, Germany etc. p. 66 figs., GOLJAN Ann. Mus. zool. polon. **15.**—*O. illyricus, taurus* key to Czech ff. p. 15 figs., TESAŘ Acta Mus. Siles. (A) **1** 1951.—*O.* revision of Czech spp. pp. 1–21 figs., TESAŘ op. cit. (A) **2.**

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Scybalocanthon luctuosus Har. p. 69, *darlingtoni* Paul. p. 72 from *Canthon* figs., MARTÍNEZ Publ. Mis. Estud. Pat. reg. argent. **24** nos. 83–84.

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Macroserica **subgen. n.** (type *punctatissima* Fald.) see *Maladera*.

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Potosia fieberi **subsp. n.** *borysthenica* S. Russia, S. and Centr. Europe p. 190 figs., MEDVEDEV Opred. Faune SSSR **47** 1952.

CURCULIONIDAE.

Additions to Curculionidae of Celebes and Sanghir Is., GÜNTHER 1943 Dtsch. ent. Z., Iris Ergänzungsband: 97–118, 15 figs.

Some Angolan Curculionidae, MARSHALL Publ. cult. Cia Diamant. Angola no. 16: 99–119, 3 figs.

Alphabetical list of Bondar's types of S. American Curculionids, VAURIE Amer. Mus. Novit. no. 1615: 29 pp.

List of Curculionids from Paraná, Brazil, VERNALHA 1952 Arq. Biol. Tecn. **7**: 33–37.

Some Cossoninae from Guatemala, Voss Beitr. Ent. **3**: 611–615, 1 fig.

Catalogue of Oxycoryninae, Belinae, Archolabinae, Attelabinae, Apoderinae, Voss Coleopt. Catal. (Suppl.) partes 144, 110, 19 and 34 pp.

Some Curculionidae from Fukien, China, Voss Ent. Bl. **49**: 42–64, 65–82, 7 figs.

Some Curculionidae from Colombia and Bolivia, Voss Ent. Mitt. no. 2: 55–84, 4 figs.

Some Cossoninae from the Belg. Congo, Voss Rev. Zool. Bot. afr. **47**: 282–296, 3 figs.

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Arniticus caudatus **sp. n.** Colombia p. 66, Voss Ent. Mitt. Hamburg no. 2.

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Ctenomerus floccosus **sp. n.** Belg. Congo p. 12, MARSHALL Rev. Zool. Bot. afr. **48.**

Cychrotonus neobutanus **sp. n.** Belg. Congo p. 12, GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Cyclobarus subpyriformis **sp. n.** Morocco p. 190; *puberulus* Hust. (=*rungsi* Hoffm.) from *Cyrtolepus* p. 191, HOFFMANN Rev. franç. Ent. **20.**

Cycloderes (*C.*) *camusi* **sp. n.** Morocco p. 219, ANTOINE Rev. franç. Ent. **20.**

Cylas pumilus **sp. n.** Angola p. 108, MARSHALL Publ. cult. Cia Diamant. Angola no. 16.

Cylindrocossonus **subgen. n.** (type *cylindrocerus* Voss) see *Cossonus* and *Procossonus*.

Cylindrothecus linearis, *unicostatus* **spp. n.** Brazil p. 61, FIEDLER Zool. Anz. **151.**

Cyrtolepus puberulus see *Cyclobarus*.

Dealia ornata **sp. n.** Colombia p. 77, Voss Ent. Mitt. Hamburg no. 2.

Deiradocranus **gen. n.** (Cryptorrhynchinae), *latebris* **sp. n.** Angola p. 112 fig., MARSHALL Publ. cult. Cia Diamant. Angola no. 16.

Demimaea vau **sp. n.** Fukien p. 52 fig., Voss Ent. Bl. **49.**

Derelomus nigriceps **sp. n.** Fukien p. 77, Voss t.c.

Diacritus hovanus characters p. 384, larva p. 385 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

Dietzianus **n. n.** for *Xanthus* Dietz nec Gistl p. 114, SLEEPER Ohio J. Sci. **53.**

Dinocleus bryanti **sp. n.** Arizona p. 101, VAN DYKE Pan-Pacif. Ent. **29.**

Dirambon **gen. n.** (Brachyderinae) p. 10, *hartmanni* **sp. n.** E. Africa p. 11 fig., GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Drepanambates flavolimbatus **sp. n.** Colombia p. 75, Voss Ent. Mitt. Hamburg no. 2.

Dyscerus scrobirostris **sp. n.** Fukien p. 70, Voss Ent. Bl. **49.**

Dysticheus rotundicollis **sp. n.** California p. 106, VAN DYKE Pan-Pacif. Ent. **29.**

Echinocnemus cavicauda **sp. n.** Angola p. 107, MARSHALL Publ. cult. Cia Diamant. Angola no. 16.

Egiona circumcincta **sp. n.** Fukien p. 73 fig., Voss Ent. Bl. **49.**

Ellimenistes illotus p. 325, *subrugosus* p. 326 **spp. n.** S. Africa, MARSHALL Ann. Mag. nat. Hist. (12) **6.**

Elytrocallus key to spp. of New Caledonia p. 20; *clathratus*, *rugosipennis* **spp. n.** New Caledonia p. 21, GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Endaeus croceus **sp. n.** Cochin-China p. 90, MARSHALL Ent. mon. Mag. **89.**—*E. singularis* **sp. n.** Fukien p. 54, Voss Ent. Bl. **49.**

Epirhynchites **subgen. n.** see *Rhynchites.*

Eremotes elongatus, *nitidipennis* distinguishing characters p. 203 figs., PALM Opusc. ent. **18.**

Erethistes hartmanni p. 75, *rubricollis* p. 79 Peru, *montivagus* p. 76, *colombianus* p. 77, *waehneri* p. 79 Colombia **spp. n.** figs., GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Eucactophagus peruanus **sp. n.** Peru p. 93 fig., GÜNTHER t.c.—*E. rudeli* **sp. n.** S. America p. 81, Voss Ent. Mitt. Hamburg no. 2.

Eudmetus rudeli **sp. n.** Colombia p. 62, Voss t.c.

Euops barbieri **sp. n.** Cochin-China p. 91, MARSHALL Ent. mon. Mag. **89.** —*E.* (*Suniops*) *rufitarsis* f. *cyanicolor* **n. n.** for *cyanea* Voss nec Mshl. p. 16, Voss Coleopt. Catal. (Suppl.) pars 110 Subfam. Attelabinae.

Eupiona maynéi **sp. n.** Belg. Congo p. 3, MARSHALL Rev. Zool. Bot. afr. **48.**

Euryrrhinus **gen. n.** (Cossoninae), *remipes* (type) p. 17, *russus* p. 18 **spp. n.** Belg. Congo fig., MARSHALL Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **25.**

Euscelus (*Coscineuscelus*) *cribratus* **n. n.** for *cribrarius* Grims. preoc. p. 4, Voss Coleopt. Catal. (Suppl.) pars 110 Subfam. Attelabinae.

Eusynnada stictica **sp. n.** Fukien p. 55, Voss Ent. Bl. **49.**

Exochyromera crassirostris **subsp. n.** *chinensis* Fukien p. 57, Voss t.c.

Exodema saigonensis **sp. n.** Cochin-China p. 92, MARSHALL Ent. mon. Mag. **89.**

Exorides rudeli **sp. n.** Colombia p. 59, Voss Ent. Mitt. Hamburg no. 2.

Femocomus **subgen. n.** see *Conotrachelus.*

Fiedlerella **gen. n.** for *Conotrachelus* spp. of Fiedler's group VI p. 207, PAPP in PAPP & VARGA Portug. Acta biol. (B) **3** 1951.

Gasteroclisus mayidi **sp. n.** Belg. Congo p. 10, MARSHALL Rev. Zool. Bot. afr. **48.**

Geniocremnus **gen. n.** for *Megalometis chiliensis* Boh. (type), *M. laticollis* Blanch., *Strangaliodes cognatus* Blanch., *S. villosus* Blanch. p. 20, KUSCHEL Acta zool. lilloana **8** 1949.

Gerstaeckeria galapagoensis **sp. n.** (with **subspp. n.** *barringtonensis* p. 152, *hoodensis*, *seymourensis* p. 153) p. 151 Galapagos Is. fig., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Gethen **gen. n.** (Cossoninae), *luscus* **sp. n.** Angola p. 118 fig., MARSHALL Publ. cult. Cia Diamant. Angola no. 16.

Graphonotus centromaculatus **sp. n.** Colombia p. 72 fig., Voss Ent. Mitt. Hamburg no. 2.

Hadromeropsis subaeneus **sp. n.** Colombia p. 61, Voss t.c.

Hapactorrhynchus **gen. n.** (Otiorrhynchinae), *vadoni* **sp. n.** Madagascar p. 142 fig., RICHARD Nat. malgache **4** 1952.

Hemiliopsis (?) *fassli* **sp. n.** Colombia p. 73, Voss Ent. Mitt. Hamburg no. 2.

Heptarthrum leleupi **sp. n.** Belg. Congo p. 290 fig., Voss Rev. Zool. Bot. afr. **47.**

Heterocleonus **gen. n.** (nr. *Conorrhynchus*), *demoflysi* **sp. n.** Tunisia p. 121 figs., NORMAND Rev. franç. Ent. **20.**

Heterocossonus **subgen. n.** see *Cossonus* and *Heterophasis.*

Heteroglymma sudarae **subsp. n.** *carinata* Sanghir; *wolterecki* **sp. n.** ? Sanghir Is. p. 100 figs., GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Heterophasis Woll. (=*Cossonus* subgen. *Heterocossonus* Voss); *curvirostris* Voss (=*patruelis* Voss) p. 7, MARSHALL Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **25.**

Hilipus patruelis p. 64, *fassli* p. 65 **spp. n.** Colombia, Voss Ent. Mitt. Hamburg no. 2.

Himatiodes **gen. n.** (Cossoninae) p. 69, *setulifer* **sp. n.** New Zealand p. 70, MARSHALL Trans. roy. Soc. N.Z. **81.**

Himatium carinirostre **sp. n.** Belg. Congo, MARSHALL Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **25.**

Holcolaccus **gen. n.** (Otiorrhynchinae), *viridulus* **sp. n.** Natal p. 324, MARSHALL Ann. Mag. nat. Hist. (12) **6.**

Homacalyptus **gen. n.** (Anthonominae) p. 61, *rufus* **sp. n.** Fukien p. 62, Voss Ent. Bl. **49.**

Homalotrogus complanatus Mshl. (=*Cossonus elongaticeps* Hust.) from *C.* p. 7, MARSHALL Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **25.**—*H. arctatus* see *Cossonus indigens.*

Hybreoleptops **gen. n.** for *Strangaliodes tuberculifer* Boh. (type) (=*S. margaritacea* Er.), *S. vestita* Blanch., *S. xanthomelana* Fairm. & Germ., *S. aureosignata* Blanch. p. 19, KUSCHEL Acta zool. lilloana **8** 1949.

Hydronomus phytonomoides **sp. n.** Fukien p. 80, Voss Ent. Bl. **49.**

Hydronoplus signatifrons larva p. 365 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

Involvulus (*Elautobius*) *dentatus* **sp. n.** Fukien p. 42, Voss Ent. Bl. **49.**

Isopterus key to Philippines spp. p. 59; *minutus* p. 61, *chiracanthus* p. 66 (with **subspp. n.** *balagbagiensis, tener* p. 67), *tuberculifrons, macromerus* p. 68, *variabilis* p. 69 **spp. n.**; *acanthomerus* **subsp. n.** *polisianus* p. 63 Philippines figs., GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Kangoropus costatus p. 70, *modestus* p. 72 **spp. n.** Brazil, GÜNTHER t.c.

Laemosaccodes similaris Fukien p. 71, *maior* Indo-China p. 73 **spp. n.**; key p. 72, Voss Ent. Bl. **49.**

Laparocerus (*Wollastonicerus*) *separandus, brunneus, propinquus* p. 14, *vicinus,* (*W.*) *gomerensis, longiclava* p. 15, *palmensis* p. 16 **spp. n.** Canary Is. figs., LINDBERG Comment. biol. **13** no. 12.

Lembodes subcostatus **sp. n.** Galapagos Is. p. 154 fig., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Leprosomus spinipennis **sp. n.** Colombia p. 67 fig., Voss Ent. Mitt. Hamburg no. 2.

Linecomelus **subgen. n.** see *Conotrachelus.*

Linecomus **subgen. n.** see *Conotrachelus.*

Listroderes costirostris subsp. *obliquus* Klug (=*hypocritus* Hust.) p. 192, HOFFMANN Rev. franç. Ent. **20.**

Lixus leleupi **sp. n.** Belg. Congo p. 11, MARSHALL Rev. Zool. Bot. afr. **48.**

Macrancylus gracilis **sp. n.** Galapagos Is. p. 156, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.—*M. franciscanus* **sp. n.** California p. 108, VAN DYKE Pan-Pacif. Ent. **29.**

Macrocorynus (*Steirarrhinus*) *nudimaculatus* **sp. n.** Colombia p. 60, Voss Ent. Mitt. Hamburg no. 2.

Mecomerinthus holtzi **sp. n.** E. Africa p. 57 fig., GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Mecopus torquis **sp. n.** Belg. Congo p. 13, MARSHALL Rev. Zool. Bot. afr. **48.**

Megalometis chiliensis, laticollis see *Geniocremnus.*

Mesphrigodes prasinus **sp. n.** Transvaal p. 325, MARSHALL Ann. Mag. nat. Hist. (12) **6.**

Metetra rufitarsis **sp. n.** Fukien p. 74, Voss Ent. Bl. **49.**

Metriophilus clypeatus **sp. n.** Brazil p. 60, FIEDLER Zool. Anz. **151.**

Miarus revision of French spp. pp. 51–63 (key p. 51); *distinctus* **subsp. n.** *rectirostris* France p. 60 figs., HOFFMANN Entomologiste **9.**

Micromyrmex **gen. n.** for *Otidocephalus poeyi* Chevr. (type), *O. cavirostris* Cas. p. 118, SLEEPER Ohio J. Sci. **53.**

Myrmex lineata **subsp. n.** *knowltoni* p. 114; *marshalli* p. 116, *algerti*, *gillespiensis* p. 117 **spp. n.** U.S.A.; *semirufa* Green (=*dimidiatus* Van Dyke) (from *Otidocephalus*) and a sp. not var. of *ruficornis* Cas. p. 116 figs., SLEEPER t.c.

Nemocestes fragariae **sp. n.** California p. 105, VAN DYKE Pan-Pacif. Ent. **29.**

Neoanypotactus hirtus **sp. n.** Colombia p. 60, Voss Ent. Mitt. Hamburg no. 2.

Neopentarthrum cunicollis p. 157, *mutchleri*, *glabrum* p. 158 **spp. n.** Galapagos Is., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Neorhynchites **subgen. n.** see *Rhynchites*.

Nertus spretus, *grallator* **spp. n.** Peru p. 87 figs., GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Nesendaeus monochrous **sp. n.** Fukien p. 53, Voss Ent. Bl. **49.**

Nestrius hudsoni **sp. n.** New Zealand p. 68, MARSHALL Trans. roy. Soc. N.Z. **81.**

Ochyromera 4-maculata p. 56, *distinguenda* p. 57 **spp. n.** Fukien, Voss Ent. Bl. **49.**

Omotrachelus angolanus **sp. n.** Angola p. 101, MARSHALL Publ. cult. Cia Diamant. Angola no. 16.

Oopterinus perforatus **subsp. n.** *iowaensis* Iowa p. 118, SLEEPER Ohio J. Sci. **53.**

Opseoscapha consanguinea **sp. n.** Fukien p. 54, Voss Ent. Bl. **49.**

Orchestoides inornatus **sp. n.** Fukien p. 65, Voss t.c.

Orthosinus foveatus **sp. n.** Fukien p. 81, Voss t.c.

Otidocephalus semirufus see *Myrmex*; *poeyi*, *cavirostris* see *Micromyrmex*.

Otidognathus madurensis **sp. n.** E. India p. 88, GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Otiorrhynchus ligustici all stages pp. 108–113 figs., JØRGENSEN K. Vet-Højsk. Aarsskr. **1953.**—*O.* (*Edelengus*) *laurenti* **sp. n.** Algeria p. 118 fig., NORMAND Rev. franç. Ent. **20.**

Palaeocorynus cristicollis **sp. n.** Angola p. 111, MARSHALL Publ. cult. Cia Diamant. Angola no. 16.

Pantomorops **gen. n.** for *Pantomorus striatus* Hust. p. 20, KUSCHEL Acta zool. lilloana **8** 1949.

Pantomorus blairi p. 146, *crockeri*, *caroli* p. 147, *williamsi* p. 150 **spp. n.** Galapagos Is., VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.—*P. striatus* see *Pantomorops*.

Paracyclomaurus glaber **sp. n.** Tunisia p. 119 fig., NORMAND Rev. franç. Ent. **20.**

Paramecolabus (*Catalabus*) *quadriplagiatus* **sp. n.** Fukien p. 49, Voss Ent. Bl. **49.**

Paramorphorrhinus **gen. n.** (Calandrinae) p. 95, *longirostris* **sp. n.** Madagascar p. 96 fig., GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Peritelus (*Leptosphoerotes*) *granulosus* **sp. n.** Algiers p. 189, HOFFMANN Rev. franç. Ent. **20.**

Perrhynchites **subgen. n.** (type *aereipennis* Desbr.) see *Rhynchites*.

Pertorcus **gen. n.** (Baridinae), *tibialis* **sp. n.** Fukien p. 75 fig., Voss Ent. Bl. **49.**

Phaenomerus hirtus see *Rhynchorthus*.

Pissodes validirostris, *gyllenhali*, *pini* characters p. 122 figs., PALM Ent. Tidskr. **74.**

Platyomicus key to spp. and races p. 30; *humeralis* **subsp. n.** *victoriaenyanzae* E. Africa p. 41; *tuberosus* **subsp. n.** *gibbipennis* Belg. Congo, Sp. Guinea etc. p. 43; *collaris* p. 45, *dorsalis* p. 48 **spp. n.** E. Africa; *quadrituberculatus* Faust (=*laesipes* Qued.) p. 46; distribution pp. 50–57 figs., GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Pparchus carinirostris **sp. n.** New Zealand p. 67, MARSHALL Trans. roy. Soc. N.Z. **81.**

Procossonus Hust. 1937 (=*Cossonus* subg. *Cylindrocossonus* Voss 1939); *acutidens* Hust. (=*C. cylindrocerus* Voss) p. 7, MARSHALL Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **25.**

Promecops additions to key of S. American spp.; *setiger* Fhs. (=*umbrosa* Voss); *posticus* Fhs. (=*olivieri* Fst.); *pulchella* Boh. a variant of *gracilis* Fhs.; *lunata* Fhs., *cognata* Fhs. characters p. 427; (*Promecodes*) *sitonoides* p. 428, (*P.*) *franckei* p. 431, (s. str.) *consobrina* p. 433 **spp. n.**; *rostralis* **var. n.** *novaeteutoniae* p. 429 (note) Brazil figs., Voss Ark. Zool. (N. S.) **4.**

Protostrophus zambesianus p. 321, *platyops* p. 322 S. Rhodesia, *peninsularis* S. Africa p. 323 **spp. n.**, MARSHALL Ann. Mag. nat. Hist. (12) **6.**

Pseudapries planus **sp. n.** Cochin-China p. 91, MARSHALL Ent. mon. Mag. **89.**

Pseudeudius key to S. American spp. p. 424; *plaumanni* p. 426, *cimetarius* p. 427 **spp. n.** Brazil fig., Voss Ark. Zool. (N.S.) **4.**

Pseudocomus **subgen. n.** (type *abdominalis* F.) see *Conotrachelus.*

Pseudomesites vossi Ghesq. from *Pseudomimus* p. 11, MARSHALL Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **25.**—*P. apicalis* **sp. n.** Belg. Congo p. 289, Voss Rev. Zool. Bot. afr. **47.** —*P. suturifer* see *Pseudomimus.*

Pseudomesitodes **gen. n.** (Cossoninae), *subdentatus* (type) p. 292, *occultus* p. 293 **spp. n.** Belg. Congo figs., Voss Rev. Zool. Bot. afr. **47.**

Pseudomimus (*Pseudomimobius*) *sylvaticus* **sp. n.** Belg. Congo p. 294 fig., Voss t.c.—*P. angolensis* Woll. from *Brachyscapus*; *suturifer* Mshl. from *Pseudomesites*; *maynéi* Hust. (= *tenebrosus* Voss); *amitinus* Voss (=*a. crassirostris* Voss); key to African spp. p. 11; *nitens* p. 13, *quadraticollis* p. 14, *angustatus* p. 15 **spp. n.** Belg. Congo, MARSHALL Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **25.**—*P. vossi* see *Pseudomesites.*

Rhinoncus paganus Gyll. (=*luzonicus* Hust.) p. 90, MARSHALL Ent. mon. Mag. **89.**

Rhynchaenus rugosus **sp. n.** Cochin-China p. 91, MARSHALL t.c.—*R.* (*Alyctus*) *basirostris* **sp. n.** Fukien p. 66, Voss Ent. Bl. **49.**

Rhynchites key to spp. p. 44; (*Perrhynchites* p. 45, *Neorhynchites* p. 46, *Epirhynchites* p. 47 **subgenn. n.**); (*E.*) *ignitus* **sp. n.** Fukien, Yunnan p. 43, Voss t.c.

Rhynchorthus **gen. n.** for *Phaenomerus hirtus* Hust. p. 15, MARSHALL Rev. Zool. Bot. afr. **48.**

Rhyncolus dilucidus **sp. n.** Belg. Congo p. 287, Voss op. cit. **47.**—*R. stacesmithi* **sp. n.** Br. Columbia p. 119, SLEEPER Ohio J. Sci. **53.**—*R. chinensis* **sp. n.** Fukien p. 81, Voss Ent. Bl. **49.**

Rhyparonotus nodosus **sp. n.** Colombia p. 69, Voss Ent. Mitt. Hamburg no. 2.

Rhytirhinus brevis p. 44, *mateui* p. 46 **spp. n.** S. Spain, SOLARI Boll. Soc. ent. ital. **82** 1952.

Rungsythropus **gen. n.** (nr. *Scythropus*), *elongatus* **sp. n.** Morocco p. 191, HOFFMANN Rev. franç. Ent. **20.**

Seidlitzia barynotoides **subsp. n.** *latesparsa* Morocco p. 220, ANTOINE Rev. franç. Ent. **20.**

Seleuca simillima p. 68, *horridula* p. 69 **spp. n.** Fukien, Voss Ent. Bl. **49.**

Sitona palmensis **sp. n.** Canary Is. p. 16 figs., LINDBERG Comment. biol. **13** no. 12.

Sitophilus linearis early stages p. 150 figs., USMAN Indian J. Ent. **15.**

Smicronyx menozzii p. 22, *gratiosus* p. 28 Italy, *brevicornis* Italy, Sardinia, Spain, Greece p. 26, *smreczynskii* Poland p. 25 **spp. n.**; key p. 33, SOLARI Mem. Soc. ent. ital. **31** 1952. —*S. swertiae* **sp. n.** Germany p. 6; key to spp. allied to *s.* pp. 8, 14, systematic and distributional notes pp. 22, 29; *striatipennis* **f. n.** *italica* Italy p. 15, Voss NachrBl. bayer. Ent. **2.**

Solenorrhinus hessei **sp. n.** S. Africa p. 328, MARSHALL Ann. Mag. nat. Hist. (12) **6.**

Sphincticraeropsis rugosus **sp. n.** Fukien p. 63, Voss Ent. Bl. **49.**

Stenomimodes **gen. n.** (Cossoninae) p. 294, *kivuanus* **sp. n.** Belg. Congo p. 295 figs., Voss Rev. Zool. Bot. afr. **47.**

Stenoscelis key to African spp. p. 19; *marginicauda* p. 20, *breviscrobis* p. 21, *leviceps* p. 22, *lefèvrei*

p. 23 **spp. n.** Belg. Congo figs., MARSHALL Ann. Mus. Congo belge (Sér. 8°) Sci. zool. **25**.

Stereonychus angulicollis **sp. n.** Fukien p. 67, Voss Ent. Bl. **49**.

Strangaliodes (*Chersostrangaliodes* **subgen. n.** p. 20), KUSCHEL Acta zool. lilloana **8** 1949.—*S. cognatus, villosus* see *Geniocremnus*; *tuberculifer* (*margaritacea*), *vestita, xanthomelana, aureosignata* see *Hybreoleptops*.

Synaptoplus key to E. African spp. p. 14; *foveolatus* p. 16, *collaris* (with **subsp. n.** *schliebeni*) p. 18 Tanganyika **spp. n.**, GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

Synnada bicolorata **sp. n.** Fukien p. 57, Voss Ent. Bl. **49**.

Systates congestus p. 7, *angulipes* p. 8 (with **subsp. n.** *obtusior*), *turbidus* p. 9 **spp. n.** Belg. Congo, MARSHALL Rev. Zool. Bot. afr. **48**.

Tachypterellus collaris **sp. n.** Fukien p. 60, Voss Ent. Bl. **49**.

Tanyremnus longicornis, nubilus **spp. n.** S. Africa p. 327, MARSHALL Ann. Mag. nat. Hist. (12) **6**.

Tanyrrhynchus brachialis **sp. n.** S. Africa p. 329, MARSHALL t.c.

Tanysphyrus key to Palaearctic spp. p. 58, Voss NachrBl. bayer. Ent. **2**. —*T. brevipennis* **sp. n.** Fukien p. 79, Voss Ent. Bl. **49**.

Tapinomorphus kivuanus p. 2, *carinirostris* p. 3 **spp. n.** Belg. Congo, MARSHALL Rev. Zool. Bot. afr. **48**.

Timola loranthi **sp. n.** Transvaal p. 332, MARSHALL Ann. Mag. nat. Hist. (12) **6**.

Tomolips pinicola **sp. n.** Guatemala p. 613 fig., Voss Beitr. Ent. **3**.

Trachodes albofasciatus **sp. n.** Maritime Province p. 317; key to Palaearctic spp. p. 319, TER-MINASYAN Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Trachyphloeus bifoveolatus **subsp. n.** *canariensis* Canary Is. p. 13 figs., LINDBERG Comment. biol. **13** no. 12.

Typoderus **gen. n.** (Hylobiinae) p. 104, *machadoi* (type), *deceptor* **spp. n.** Angola p. 105 fig., MARSHALL Publ. cult. Cia Diamant. Angola no. 16.

Umzila capeneri **sp. n.** S. Africa p. 330, MARSHALL Ann. Mag. nat. Hist. (12) **6**.

Unas conirostris **sp. n.** New Zealand p. 68, MARSHALL Trans. roy. Soc. N.Z. **81**.

Xanthus see *Dietzianus*.

Zascelis appendiculata, fissicostata p. 63, *fossulatifrons* p. 64, *filicornis* p. 65 **spp. n.** Brazil, FIEDLER Zool. Anz. **151**.

Zyrcosa key to W. African spp. p. 26; *murrayi* **subsp. n.** *kamerunensis* Cameroons p. 27; *concolor* **sp. n.** Cameroons, Spanish Guinea p. 28 fig., GÜNTHER Dtsch. ent. Z., Iris Ergänzungsband 1943.

SCOLYTIDAE (IPIDAE).

British Scolytidae, with keys, DUFFY Handb. Ident. Br. Ins. **5** pt. 15: 1–16, 38 figs.

Scolytids of Kiushu and Shikoku, Japan, MURAYAMA 1950 Kontyu, Tokyo **18**: 96–103 [not seen].

List of Scolytidae of Shikoku, Japan, MURAYAMA Trans. Shikoku ent. Soc. **3**: 144–146, 147–163.

Contribution to Argentine Scolytoidea, SCHEDL 1952 Acta zool. lilloana **12**: 443–463.

Scolytoids of Alsace, SCHEDL 1952 Bull. Ass. philom. Als. Lorr. **9** fasc. 1: 86–88.

Some Scolytoidea from China, SCHEDL Ent. Bl. **49**: 22–30, 1 fig.

Some Scolytidae from Belg. Congo, SCHEDL Rev. Zool. Bot. afr. **47**: 241–243.

Bark beetles of USSR (keys p. 84), STARK 1952 Fn. USSR, Coleoptera **31**: 1–462, 304 figs.

Aphanarthrum aeonii **sp. n.** Canary Is. p. 18 figs., LINDBERG Comment. biol. **13** no. 12.

Arixyleborus leprosulus **sp. n.** Malaya p. 300, SCHEDL Ann. Mag. nat. Hist. (12) **6**.

Carphoborus abachidsei **sp. n.** Georgia p. 232, STARK Fn. USSR, Coleoptera **31** 1952.

Chilodendron **gen. n.**, *planicolle* **sp. n.** Madagascar p. 74 figs., SCHEDL Mém. Inst. sci. Madagascar (E) **3**.

Chramesus ovalis p. 454, *cylindricus* p. 455, *argentinensis* p. 456 **spp. n.** Argentina, SCHEDL Acta zool. lilloana **12** 1952.

Cosmoderes melanarius **sp. n.** Madagascar p. 80, SCHEDL Mém. Inst. sci. Madagascar (E) **3.**

Cryphalus substriatus ♂ p. 289; *helopioides* Malaya p. 295, *procerus* Sumatra p. 296 **spp. n.**, SCHEDL Ann. Mag. nat. Hist. (12) **6.**

Cryphyophthorus **gen. n.**, *eggersi* **sp. n.** Sumatra p. 294, SCHEDL t.c.

Cryptoxyleborus barbieri **sp. n.** Indo-China p. 128 fig., SCHEDL Rev. franç. Ent. **20.**

Cyrtogenius impar p. 88, *hirtellus* **spp. n.** Madagascar; *tuberculifer* ♂ p. 89 fig., SCHEDL Mém. Inst. sci. Madagascar (E) **3.**

Dendriops **gen. n.**, *granulicollis* **sp. n.** Indo-China p. 125 fig., SCHEDL Rev. franç. Ent. **20.**

Dryocoetes minutissimus **sp. n.** Indo-China p. 127, SCHEDL t.c.—*D. kepongi* **sp. n.** Malaya p. 296, SCHEDL Ann. Mag. nat. Hist. (12) **6.**—*D. carpini* Maritime Province p. 329, *padi* River Ussuri p. 335 **spp. n.** figs., STARK Fn. USSR, Coleoptera **31** 1952.

Erioschidias pellitus **sp. n.** Madagascar p. 79, SCHEDL Mém. Inst. sci. Madagascar (E) **3.**

Hylocurus robustus p. 456, *vianai* p. 457, *intermedius* p. 458 **spp. n.** Argentina, SCHEDL Acta zool. lilloana **12** 1952.

Hylurgonotus **gen. n.**, *brunneus* **sp. n.** Argentina p. 448, SCHEDL t.c.

Hypocryphalus malayensis ♂ p. 289, SCHEDL Ann. Mag. nat. Hist. (12) **6.**—*H. formosanus* **sp. n.** Formosa p. 62, SCHEDL Philipp. J. Sci. **81** 1952.—*H. interponens* **sp. n.** Indo-China p. 126, SCHEDL Rev. franç. Ent. **20.**

Hypothenemus obscuriceps p. 449, *hirtipennis*, *minutissimus* p. 450, *longipilis* p. 451 **spp. n.** Argentina, SCHEDL Acta zool. lilloana **12** 1952. —*H. glabratellus* **sp. n.** Malaya p. 292, SCHEDL Ann. Mag. nat. Hist. (12) **6.** —*H. marovoayi* p. 81, *madagascariensis* p. 82 **spp. n.** Madagascar, SCHEDL Mém. Inst. sci. Madagascar (E) **3.**

Ips subelongatus Motsch. (=*fallax* Egg.) p. 394, STARK Fn. USSR, Coleoptera **31** 1952.

Lanurgus frontalis **sp. n.** Madagascar p. 85, SCHEDL Mém. Inst. sci. Madagascar (E) **3.**

Liparthrum degener **sp. n.** Canary Is. p. 18 figs., LINDBERG Comment. biol. **13** no. 12.

Micraciops **gen. n.**, *catenatus* p. 86, *obesus* p. 87 **spp. n.** Madagascar fig., SCHEDL Mém. Inst. sci. Madagascar (E) **3.**

Miocryphalus pennatus **sp. n.** Madagascar p. 79, SCHEDL t.c.

Oriosiotes formosanus **sp. n.** Formosa p. 63, SCHEDL Philipp. J. Sci. **81** 1952.

Ozopemon browni **sp. n.** Malaya p. 297, SCHEDL Ann. Mag. nat. Hist. (12) **6.**

Phacrylus robustus **sp. n.** Argentina p. 453, SCHEDL Acta zool. lilloana **12** 1952.

Phloeochilus **gen. n.**, *palaquius* **sp. n.** Malaya p. 292, SCHEDL Ann. Mag. nat. Hist. (12) **6.**

Phloeosinus sinensis, *hopehi* **spp. n.** China p. 23, SCHEDL Ent. Bl. **49.**

Phloeotribus australis **sp. n.** Queensland p. 80 fig., SCHEDL Mem. Qd Mus. **13.**

Phthorophloeus argentinensis **sp. n.** Argentina p. 447, SCHEDL Acta zool. lilloana **12** 1952.

Pityodendron **gen. n.**, *madagascariensis* **sp. n.** Madagascar p. 93 fig., SCHEDL Mém. Inst. sci. Madagascar (E) **3.**

Pityophthorus dorsalis **sp. n.** Madagascar p. 94, SCHEDL t.c.—*P. micrographus* **var. n.** *sibiricus* N. Sayan Mtns., S. Baikal region; *pityographus* **subsp. n.** *maritimus* Caucasus p. 344; *lapponicus* **sp. n.** Kola peninsula, Maritime Province p. 356 figs., STARK Fn. USSR, Coleoptera **31** 1952.

Platyscapus cultellus **sp. n.** Madagascar p. 105, SCHEDL Mém. Inst. sci. Madagascar (E) **3.**

Poecilips aterrimus **sp. n.** Malaya, Java p. 298, SCHEDL Ann. Mag. nat. Hist. (12) **6**.—*P. klapperichi* **sp. n.** Fukien p. 26, SCHEDL Ent. Bl. **49**.—*P. congonus* early stages p. 353 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

Polygraphus amoenus re-description p. 83; *perlaetus* **sp. n.** Madagascar p. 84, SCHEDL Mem. Inst. Sci. Madagascar (E) **3**.

Pterocyclon eumerum p. 459, *vernaculum*, *gibber* p. 460 **spp. n.** Argentina, SCHEDL Acta zool. lilloana **12** 1952.

Ptilopodius venustus **sp. n.** Madagascar p. 78, SCHEDL Mém. Inst. sci. Madagascar (E) **3**.—*P. shoreae* p. 293, *squamosus* p. 294 **spp. n.** Malaya, SCHEDL Ann. Mag. nat. Hist. (12) **6**.

Scolytomimus costipennis **sp. n.** Pahang p. 291, SCHEDL t.c.

Scolytoplatypus madagascariensis **sp. n.** Madagascar p. 71; *hova* Schauff. ♂ p. 72 figs., SCHEDL Mém. Inst. sci. Madagascar (E) **3**.—*S. muticus* see *Scolytus daimo*.

Scolytus daimo Blandf. (=*Scolytoplatypus muticus* Hag.) p. 61, SCHEDL Philipp. J. Sci. **81** 1952.

Stephanoderes taihokuensis **sp. n.** Formosa p. 63, SCHEDL t.c.—*S. tigrensis*, *glabellus* **spp. n.** Argentina p. 452, SCHEDL Acta zool. lilloana **12** 1952.

Streptocranus hendrickxi **sp. n.** Belg. Congo p. 245, SCHEDL Rev. Zool. Bot. afr. **47**.

Thamnurgus mandibularis p. 90, *nitidulus* p. 91, *nitellus* p. 92 **spp. n.** Madagascar, SCHEDL Mém. Inst. sci. Madagascar (E) **3**.

Trachyostus nitidior **sp. n.** Indo-China p. 129, SCHEDL Rev. franç. Ent. **20**.

Trypophloeus rybinskii **subsp. n.** *salicis* Ukraine p. 283; *berezinae* Archangel p. 285, *tremulae* Crimea p. 287 **spp. n.** figs., STARK Fn. USSR, Coleoptera **31** 1952.

Webbia 14-*costatus* **n. n.** for 14-*spinatus* Schedl nec Samps. p. 61, SCHEDL Philipp. J. Sci. **81** 1952.—*W. costulatulus* **sp. n.** Malaya p. 299, SCHEDL Ann. Mag. nat. Hist. (12) **6**.

Xyleborus cristatulus p. 300, *decumans* p. 301, *kalantanus*, *punctipennis* p. 302, *rugipennis* p. 303, *scabrior* p. 304 **spp. n.** Malaya, SCHEDL t.c.—*X. sextuberculatus* **sp. n.** Argentina p. 461, SCHEDL Acta zool. lilloana **12** 1952.—*X. taichuensis* p. 64, *taboensis* p. 65 **spp. n.** Formosa, SCHEDL Philipp. J. Sci. **81** 1952.—*X. ciliatoformis*, *abruptulus* **spp. n.** Australia p. 81 figs., SCHEDL Mem. Qd Mus. **13**.—*X. artecomans* p. 24, *armipennis* p. 27, *armiger*, *lignographus* p. 28, *tenuigraphus* p. 29 **spp. n.** Fukien fig., SCHEDL Ent. Bl. **49**.—*X. dilatatulus* **sp. n.** Indo-China p. 127, SCHEDL Rev. franç. Ent. **20**.—*X. hova* p. 95, *mahafali* p. 96, *sakalava* p. 97, *antanala* p. 98, *boeni* p. 99, *antaisaka* p. 100, *sauropterus* p. 101, *dentellus*, *quadrispinis* p. 102, *mitosomipennis* p. 103, *mitosomiformis* p. 104 **spp. n.** Madagascar; *diversipennis* ♂ p. 97 figs., SCHEDL Mém. Inst. sci. Madagascar (E) **3**.

Xyloctonus biseriatus p. 76, *quadridens*, *aethiops* p. 77 **spp. n.** Madagascar figs., SCHEDL t.c.

PLATYPODIDAE.

British Platypodidae, with keys, DUFFY Handb. Ident. Br. Ins. **5** pt. 15: 16–18, 2 figs.

List of Platypodidae of Shikoku, MURAYAMA Trans. Shikoku ent. Soc. **3**: 146, 163–165.

Some Platypodidae from Belg. Congo, SCHEDL Rev. Zool. Bot. afr. **47**: 243–245.

Chaetastus **n. n.** for *Symmerus* Chap. nec Walk. p. 44 (note), NUNBERG Ann. Mus. zool. polon. **15**.

Doliopygus serratulus (also Senegal) p. 246, *uncinatus* p. 247 **spp. n.** Belg. Congo, SCHEDL Rev. Zool. Bot. afr. **47**.

Periomatus grandis **sp. n.** Cameroons, Belg. Congo p .248, SCHEDL t.c.

Platypicerinae **subfam. n.** p. 44 figs., NUNBERG Ann. Mus. zool. polon. **15**.

Platypicerus **gen. n.** p. 46, *hamatus* **sp. n.** Centr. Madagascar p. 49 figs., NUNBERG t.c.

Platypus trispinatus p. 462, *striatopennis* p. 463 **spp. n.** Argentina, SCHEDL Acta zool. lilloana **12** 1952. —*P. sinensis* ♂ p. 26, SCHEDL Ent. Bl. **49.**

Symmerus see *Chaetastus.*

ANTHRIBIDAE.

Catalogue of Anthribidae, WOLFRUM Coleopt. Catal. (Suppl.) pars 102 63 pp.

Aulodina tristis **sp. n.** Cameroons p. 144, WOLFRUM Mitt. zool. Mus. Berl. **29.**

Derographium bellum **sp. n.** Cameroons p. 146, WOLFRUM t.c.

Dysnos morio, remissus see *Melanopsacus.*

Exechesops acaulus **sp. n.** China p. 315, WOLFRUM Mitt. münch. ent. Ges. **43.**

Gulamentus ellipticus p. 141, *utelinus* p. 142 Tanganyika, *plagifer, phaleratus* Cameroons p. 143 **spp. n.**, WOLFRUM Mitt. zool. Mus. Berl. **29.**

Meconemus infuscatus **subsp. n.** *avis* Venezuela p. 314, WOLFRUM Mitt. münch. ent. Ges. **43.**

Melanopsacus corrutinus, spiniger, atollens p. 139, *acerbus, abdominalis* p. 140 **spp. n.** Spanish Guinea ; *morio* Jord., *remissus* J. from *Dysnos* ; key to African spp. p. 141, WOLFRUM Mitt. zool. Mus. Berl. **29.**

Nessiabrissus distans, quadratus p. 137, *clavatus, aliopunctatus* p. 138 **spp. n.** Cameroons, WOLFRUM t.c.—*N. amerus* **sp. n.** Fr. Guinea p. 16, WOLFRUM Ent. Arb. **4.**

Phloeobius epimeces **sp. n.** Fr. Guinea p. 17, WOLFRUM t.c.

Pseudeuparius phaeobaptus **sp. n.** Tanganyika p. 145, WOLFRUM Mitt. zool. Mus. Berl. **29.**

Stenocerus knullorum **sp. n.** Texas p. 114 fig., SLEEPER Ohio J. Sci. **53.**

Zygaenodes sp. characters p. 48 fig., NAYAR Curr. Sci. **22.**

Longicornia.

Systematic and distributional notes for catalogue of Cerambycids of Uruguay, BOSQ & RUFFINELLI 1951 Comun. zool. Mus. Montevideo **3** no. 62 : 1–32.

Biology, morphology and immature stages of British and imported Cerambycids, DUFFY Monogr. immature stages British and imported timber beetles viii & 350 pp. 8 pls. 292 figs. frontisp.

Cerambycidae of Ruwenzori Expedition, DUFFY Ruwenzori Exped. 1934–35 **3** : 165–174, 4 figs.

Catalogue of Cerambycids of Ivory Coast, LEPESME Cat. Inst. franç. Afr. noire **11** : 1–103, 40 pls.

Cerambycidae collected by de Barros Machado in Angola, LEPESME Publ. cult. Cia Diamant. Angola no. 16 : 51–60, 1 col. pl.

Cerambycidae collected in Fernando Po 1951, LEPESME & BREUNING Bull. Inst. franç. Afr. noire **15** : 507–518.

Some Cerambycoidea collected in the Pacific, 1950, LEPESME & BREUNING Bull. Mus. Hist. nat., Paris (2) **25** : 301–306.

Cerambycoidea of Réserve du Nimba, Fr. Guinea, LESPEME & BREUNING 1952 Mém. Inst. franç. Afr. noire no. 19 : 49–66, 7 figs.

Studies on Neotropical Longicornia, I, TIPPMANN Dusenia **4** : 181–228, 5 pls.

PRIONIDAE.

Prionids of Parc nat. Upemba, Belg. Congo, BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 17 : 83–93, 6 figs.

Descriptions and bionomics of immature stages of British Prioninae, DUFFY Monogr. immature stages . . . Cerambycidae pp. 100–118.

Acanthophorus spinicornis F. (=*demeusei* Duv.) p. 90 fig., BASILEWSKY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 17.—*A.* (*Ceratocentrus*) *limai* **sp. n.** N. Rhodesia p. 122 ; keys p. 125, FERREIRA & DA VEIGA FERREIRA Rev. Fac. Ciênc. (2C) **2** 1952.

Batus barbicornis **subsp. n.** *itaitubensis* p. 227 (with **ab. n.** *picticornis*) ; *hirticornis* **ab. n.** *melancholicus* p. 228 Brazil figs., TIPPMANN Dusenia **4.**

Callistoprionus **gen. n.** p. 202, *fasciatus* **sp. n.** Costa Rica p. 203 figs., TIPPMANN t.c.

Cyclopriorius **gen. n.** p. 200, *flavus* **sp. n.** Fr. Guiana p. 202 figs., TIPPMANN t.c.

Delochilus tookei **sp. n.** S. Africa p. 21; *obscurus* re-description p. 24; key p. 25 fig., FERREIRA & DA VEIGA FERREIRA Bol. Ass. Filos. nat. **3** no. 4.

Derobrachus (*D.*) *megalophthalmus* Colombia p. 194, (*D.*) *lepesmei* Mexico p. 196 **spp. n.** figs., TIPPMANN Dusenia **4.**

Ergates faber p. 114, *spiculatus* p. 116 early stages figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Gigantotrichoderes **gen. n.** p. 197, *conicicollis* **sp. n.** Colombia p. 199 figs., TIPPMANN Dusenia **4.**

Macrodontia flavipennis Chevrl. a subsp. of *crenata*; *cervicornis* **subsp. n.** *melzeri* Peru p. 188; *dejeanii* **subsp. n.** *borgmeieri* p. 190 Honduras; list of spp. and subspp. p. 192 figs., TIPPMANN t.c.

Mallodon downesi early stages p. 117 figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Megopis sp. early stages p. 122 figs., DUFFY t.c.—*M.* (*Aegosoma*) *reflexa* larva p. 141 figs., DUFFY Proc. Hawaii. ent. Soc. **15.**

Parandra puncticeps immature stages p. 141 figs., DUFFY t.c.—*P. brunnea* early stages p. 102 figs., DUFFY Monogr. immature stages . . . Cerambycidae.—*P. galapagoensis* **sp. n.** Galapagos Is. p. 127, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

Parauxesis machadoi **sp. n.** Angola p. 52 fig., LEPESME Publ. cult. Cia Diamant. Angola no. 16.

Rhodocharis anacoloides **ab. n.** *bicolor* Brazil p. 204 figs., TIPPMANN Dusenia **4.**

Strongylaspis (*Curitiba*) *scheerpeltzi* Brazil p. 182, *hirticollis* p. 183, *sericans* p. 184, *macrotomoides* p. 186 Colombia **spp. n.**; *fryi* ♀ p. 187 fig., TIPPMANN t.c.

CERAMBYCIDAE.

Cerambycinae of Parc nat. Upemba, Belg. Congo, DUFFY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 17: 95–110, 2 figs.

Descriptions and bionomics of immature stages of British Cerambycinae, DUFFY Monogr. immature stages . . . Cerambycidae pp. 118–239.

Immature stages of Hawaiian Cerambycidae, with notes on bionomics (keys to larvae p. 137), DUFFY Proc. Hawaii. ent. Soc. **15**: 135–158, 29 figs.

Oemini of S. Africa, FERREIRA Bol. Soc. Estud. Moçambique no. 82: sep. 1–13, 1 pl.

Achryson surinamum larva p. 161 fig., DUFFY Monogr. immature stages . . . Cerambycidae.

Acimerus schaefferie **ab. n.** *interruptus* Czechoslovakia p. 49 fig., PODANY Bull. Soc. ent. Mulhouse **1953.**

Acyphoderes rubrohirsutotibialis Bolivia, *azureoopalescens* Brazil, Paraguay p. 210 **spp. n.** figs., TIPPMANN Dusenia **4.**

Allophyton biloculare redescription p. 166 fig., DUFFY Ruwenzori Exped. 1934–35 **3.**

Allosterna tabacicolor **ab. n.** *unicolor* Czechoslovakia p. 49, PODANY Bull. Soc. ent. Mulhouse **1953.**

Anaglyptus mysticus **abb. n.** *bipartitus*, *pragensis* Czechoslovakia p. 50 figs., PODANY t.c.—*A. verrucosus* early stages p. 237, DUFFY Monogr. immature stages . . . Cerambycidae.

Andraegoidus humeralis see *Trachyderes cruentatus*.

Anisogaster hamoni **sp. n.** Reunion I. p. 146 fig., VINSON Bull. Soc. ent. Fr. **58.**

Apatophysis Chevr. valid gen. not subgen. of *Centrodera* Lec. p. 207, GRESSITT Pan-Pacif. Ent. **29.**

Aromia moschata **abb. n.** *pulchrum* Czechoslovakia, *rumenica* Rumania p. 49 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

Bothrocerambyx nevermanni ♀ p. 216 figs., TIPPMANN Dusenia **4.**

Callidium impressipenne see *Trinophylum cribratum.*

Cartallum ebulinum **ab. n.** *brunnipes* Lebanon p. 49 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

Centrocerum hirsuticeps **sp. n.** Argentina p. 95, BOSQ Acta zool. lilloana **10** 1952.

Cerambyx scopolii p. 163, *cerdo* p. 165 early stages figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Cereopsius sexnotatus **f. n.** *niasicus* Nias I. p. 1, BREUNING Doriana **1** 1952 no. 31.

Ceresium unicolor larva p. 146 fig., DUFFY Proc. Hawaii. ent. Soc. **15.**

Chion cinctus early stages p. 176 figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Chlorophorus annularis early stages p. 237 fig., DUFFY t.c.—*C. annularis* immature stages p. 149 fig., DUFFY Proc. Hawaii. ent. Soc. **15.**—*C. varius* **abb. n.** *conjunctus, scutellaris, combinatus* Czechoslovakia p. 50 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

Cloniophorus (*Xestoclonius*) *dorae* **sp. n.** Angola p. 53 fig., LEPESME Publ. cult. Cia Diamant. Angola no. 16.

Clytus tropicus **ab. n.** *reductesignatus* Bohemia p. 18 figs., HEYROVSKÝ Acta Mus. Siles. (A) **1** 1951.—*C. rhamni* **ab. n.** *divisus* Czechoslovakia p. 50 fig., PODANY Bull. Soc. ent. Mulhouse **1953.**

Coleocoptus senio early stages p. 179 fig., DUFFY Monogr. immature stages . . . Cerambycidae.

Conamblys (*Mecosaspinamblys* **subgen. n.**) *splendens* **sp. n.** Angola p. 54 figs., LEPESME Publ. cult. Cia Diamant. Angola no. 16.

Cordylomera suturalis p. 182, *spinicornis* p. 183 early stages figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Criocephalus (*Cephalocrius*) *syriacus* (compared with *ferus, rusticus* p. 483) larva p. 484 figs., MARTELLI Redia **37** 1952.

Curtomerus pilicornis immature stages p. 146 figs., DUFFY Proc. Hawaii. ent. Soc. **15.**

Cylindera flava early stages p. 188 figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Cyllene acuta p. 227, *robiniae* p. 228 early stages figs., DUFFY t.c.—*C. crinicornis* immature stages p. 148 figs., DUFFY Proc. Hawaii. ent. Soc. **15.**—*C. abnormis* **var. n.** *montana* Bolivia p. 217; *lanei* **sp. n.** Brazil p. 218 figs., TIPPMANN Dusenia **4.**

Derolus bifarius **sp. n.** Uganda p. 165 figs., DUFFY Ruwenzori Exped. 1934–35 **3.**

Distenia chaparensis **sp. n.** Bolivia p. 216 figs., TIPPMANN Dusenia **4.**

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Elaphidion nanum p. 183, *mucronatum* p. 185 early stages figs., DUFFY t.c.

Elaterosoma **gen. n.** p. 205, *longissimum* **sp. n.** Venezuela p. 206 figs., TIPPMANN Dusenia **4.**

Epimelitta (?) *aureopilis* **sp. n.** Mexico p. 16, FISHER Pan-Pacif. Ent. **29.**

Evodinus interrogationis **abb. n.** *fárai, tippmanni* Bohemia p. 18 figs., HEYROVSKÝ Acta Mus. Siles. (A) **1** 1951.—*E. interrogationis* **ab. n.** *nordicus*; *variabilis* **ab. n.** *plavilstshikovi* Finland p. 49 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

Falsallophyton **gen. n.**, *gardneri* **sp. n.** Kenya p. 877, LEPESME Ann. Mag. nat. Hist. (12) **6.**

Glaucytes key to Pacific spp. p. 196; *notabilis* **sp. n.** New Hebrides p. 197 figs., GRESSITT Proc. Hawaii. ent. Soc. **15.**

Haenkea **gen. n.** p. 220, *zischkai* **sp. n.** Bolivia p. 222 figs., TIPPMANN Dusenia **4.**

Isotomus speciosus larva p. 237, DUFFY Monogr. immature stages . . . Cerambycidae.—*I. theresae* **abb. n.** *apicalis, tippmanni* Algeria p. 50 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

Isthmiade laevicollis **sp. n.** (with **var. n.** *rubrosignata*) Peru p. 215 figs., TIPPMANN Dusenia **4.**

Judolia (*Pachytodes*) *erratica* **ab. n.** *lunulata* Hungary p. 119 fig., CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**—*J. erratica erythrura* **abb. n.** *quasiquinquenotata, panini, pflegeri, elisae, komareki*; *cerambyciformis* **abb. n.** *quasimartialis* p. 41, *heyrovskyana* p. 42; *cerambyciformis* **abb. n.** *inovecensis, slovenica, multipunctata* Czechoslovakia p. 76 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**—*J. sexmaculata* **ab. n.** *conjunctomaculata* Slovakia p. 18 figs., HEYROVSKÝ Acta Mus. Siles. (A) **1** 1951.

Leptura rubra **ab. n.** *notaticeps* Czechoslovakia; *succedanea* **abb. n.** *ussurica, puncticollis* Ussuri; *dubia* **ab. n.** *bohemica* Czechoslovakia; *inexpectata* **ab. n.** *georgii* Finland p. 41 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**—*L. maculicornis* **ab. n.** *delineata* Rumania; *dubia* **ab. n.** *mediotincta* Slovakia p. 119 fig., CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**—*L. revestita* **ab. n.** *pseudopubescens* France p. 35, CLEU Ann. Soc. ent. Fr. **122.**—*L. sandoeensis* **sp. n.** Sweden p. 124; key p. 128 figs., PALM Ent. Tidskr. **74.**

Lyramela rufofemorata **sp. n.** S. Rhodesia sep. p. 5 figs., FERREIRA Bol. Soc. Estud. Moçambique no. 82.

Mecosaspinamblys **subgen. n.** (type *splendens* sp. n.) see *Conamblys*.

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Oemida gahani characters p. 177, GARDNER & EVANS E. Afr. agric. J. **18.**

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Ossibia wittei **sp. n.** Belg. Congo p. 101, DUFFY Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 17.

Oxymirus Muls. valid gen. not subgen. of *Toxotus* Dej. p. 207, GRESSITT Pan-Pacif. Ent. **29.**

Oxyprosopus nimbae **sp. n.** Fr. Guinea p. 51 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Pachydissus hector early stages p. 168 figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Pachytodes cerambyciformis **ab.** *quasimartialis* Pod. validity discussed p. 72, PIC Bull. Soc. ent. Mulhouse **1953.**

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Purpuricenus dalmatinus hirsutus **ab. n.** *voláki* Dalmatia p. 19 figs., HEYROVSKÝ Acta Mus. Siles. (A) **1** 1951.—*P. budensis* **ab. n.** *karamani* Yugoslavia p. 48, HEYROVSKÝ Ann. Mus. serb. merid. **1** 1939.—*P. desfontainei* **abb. n.** *algiricus*, *breuningi* Algeria p. 50 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

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Rhagium F. valid gen. p. 207, GRESSITT Pan-Pacif. Ent. **29.**

Rosalia coelestis ♂; *c.* **ab. n.** *bipunctata* Manchuria p. 31 figs., ALIN Izvest. Kharbin. kraev. Muz. no. 1 1945.—*R. alpina* **ab. n.** *vihorlatensis* Czechoslovakia p. 50 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

Sachalinobia Jacob. (=*Pseudopachyta* Swaine & Hopping); *koltzei* Heyd. reduced to subsp. of *rugipennis* Newm. (from *P.*) p. 207, GRESSITT Pan-Pacif. Ent. **29.**

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Smodicum cucujiforme early stages p. 160 figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Spondylis buprestoides early stages p. 154 fig., DUFFY t.c.

Stenopterus ater **abb. n.** *brunneicornis*, *brunnescens* France p. 49 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

Strangalia lindbergi ♂ p. 80, KOCHER Trav. Inst. sci. chérifien no. 7.—*S. lindbergi* **ab. n.** *impunctata* Morocco p. 135, DEBATISSE Entomologiste **8** 1952.—*S. thoracica* **ab. n.** *tesaři* Czechoslovakia p. 50, HEYROVSKÝ Acta Mus. Siles. (A) **2** 1952.—*S. attenuata* variation pp. 187–189; *a.* **ff. n.** *fulvopilosa*, *anticesexmaculata* p. 188, *multimaculata*, *anticebrunneofasciata*, *mediooblongomaculata* p. 189 Germany, SCHMIDT in SCHMIDT & KRAHMER Ent. Bl. **49.**—*S.* (*Stenura*) *maculata* **abb. n.** *punctatointegra* p. 119, *scutonotata* p. 120 Hungary, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**—*S. maculata* **abb. n.** *anticeparumpunctata*, *sunanticeparumpunctata* (also Bulgaria), *klinzigi* (also Rumania), *kaufmanni*, *subelongata*, *subexternepunctata*, *subbinotata*; *quadrifasciata* **abb. n.** *niedli*, *roubali*, *nova*; *septempunctata* **abb. n.** *sekerae*, *divisa*, *slovenica*, *quasisuturata* p. 42, *lehotensis*, *elisae*, *brunnicephala* (with **abb. n.** *impunctata*, *pici*, *brunnipes*) Czechoslovakia; *attenuata* **ab. n.** *flavicornis* Austria p. 44; *maculata* **abb. n.** *heyrovskyella*, *bohemica*, *trenciensis*, *liberecensis*, *subdisconotata* Czechoslovakia p. 76 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

Stromatium barbatum early stages p. 171 figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Synaptola (*Nimbacumaltera* **subgen. n.**) *lamottei* **sp. n.** Fr. Guinea p. 50 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Tetropium metathetely in larva p. 104 fig., JUUTINEN Ann. ent. fenn. **19.** —*T. fuscum, castaneum* early stages p. 158 fig., DUFFY Monogr. immature stages . . . Cerambycidae.

Toxotomimus Hell. from Enicodini (Lamiidae) p. 1, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 16.

Toxotus cursor ab. *letzneri* **n. n.** for *niger* Letzn. nec Oliv. p. 119, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**

Trachyderes cruentatus Dup. (= *Andraegoidus humeralis* Auriv.) p. 20, BOSQ & RUFFINELLI Comun. zool. Mus. Montivideo **3** 1951 no. 62.—*T. hilaris* larva p. 177 fig., DUFFY Monogr. immature stages . . . Cerambycidae.

Trinophylum cribratum Bates (= *Callidium impressipenne* Pic) p. 51, GILMOUR Tijdschr. Ent. **96.**—*T. cribratum* larva p. 258 figs., DUFFY Ent. Gaz. **4.**—*T. cribratum* larva p. 187, DUFFY Monogr. immature stages . . . Cerambycidae.

Ulochaetes leoninus early stages p. 145 figs., DUFFY t.c.

Vadonia livida pecta desbrochersi **ab. n.** *brunneicornis* Rumania p. 41 figs., PODANY Bull. Soc. ent. Mulhouse **1953.**

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Xystrocera globosa immature stages p. 142 figs., DUFFY Proc. Hawaii. ent. Soc. **15.**—*X. dundensis* **sp. n.** Angola p. 52, LEPESME Publ. cult. Cia Diamant. Angola no. 16.

Zamium incultum larva p. 222 fig., DUFFY Monogr. immature stages . . . Cerambycidae.

Zathecus graphites ♀ p. 224 figs., TIPPMANN Dusenia **4.**

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Systematic notes on Enicodini of New Caledonia, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 16 : 1–64.

Some Lamiinae from Fr. Guinea, BREUNING Ent. Arb. **4** : 1–9.

Lamiinae of Parc nat. Albert, Belg. Congo, BREUNING Explor. Parc nat. Albert, Miss. de Witte (1933–1935) fasc. 79 : 57–82.

Descriptions and bionomics of immature stages of British Lamiinae, DUFFY Monogr. immature stages . . . Cerambycidae pp. 239–301.

Anauxesida (*Nimbanauxesida* **subgen. n.**) *nimbae* **sp. n.** Fr. Guinea p. 61 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Anauxesis flavofemorata **sp. n.** Fr. Guinea p. 61 figs., LEPESME & BREUNING t.c.

Ancylonotus tribulus early stages p. 264 fig., DUFFY Monogr. immature stages. . . Cerambycidae.

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Anomonotes (*Micronotes* Hell. a subgen.) p. 1, BREUNING op. cit. **29** no. 16.

Apomecyna nimbae **sp. n.**; *brunnea* **var. n.** *postnigra* Fr. Guinea p. 59 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952. —*A. binubila* **f. n.** *conjuncta* S. Rhodesia ; *arabica* **subsp. n.** *mateui* Rio de Oro p. 11, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Assinia Lam. (= *Phymatogyrus* Kolbe) p. 11, BREUNING t.c.

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Batocera wyliei early stages p. 256 figs., DUFFY Monogr. immature stages. . . Cerambycidae.

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Carinatodorcadion fulvum subsp. *fulvum* **ab. n.** *brunneicorne* Slovakia ; *f.* subsp. *canaliculatum* **abb. n.** *pseudobrunneicorne, lineatotomentosum, apicenotatum, heyrovskyi* Rumania p. 33, PODANY Bull. Soc. ent. Mulhouse **1953.**

Cephalenicodes **gen. n.** for *Enicodes bimaculatus* Fauv. p. 30, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 16.

Chaetacanthidius cristatus Gahan from *Phlyarus* p. 51, GILMOUR Tijdschr. Ent. **96.**

Charieschesthes (*C.*) *bechynei* **sp. n.** Fr. Guinea p. 4, BREUNING Ent. Arb. **4.**—*C.* (*Peritragus*) *ertli* **var. n.** *apicepunctata* Angola p. 56 fig., LEPESME Publ. cult. Cia Diamant. Angola no. 16.

Charieschesthoides unicolor **sp. n.** Angola p. 6 fig., BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Clavenicodes **subgen. n.** (type *clavus* Fauv.) see *Mimenicodes.*

Cobria birói **sp. n.** New Guinea p. 101, BREUNING Ann. hist.-nat. Mus. hung. (N.S.) **4.**

Coeloprocta Auriv. (=*Anisopeplus* Melz.) p. 17, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

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Cyriocrates elegans **var. n.** *coloremutabilis* Burma p. 152 fig., TIPPMANN Ent. Bl. **49.**

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Diaxenes dendrobii early stages p. 299 fig., DUFFY Monogr. immature stages. . . Cerambycidae.

Dichostates biflavoplagiatus **sp. n.** Fr. Guinea p. 57 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Doesburgia **gen. n.**, *celebiana* **sp. n.** Celebes p. 103 figs., TIPPMANN Tijdschr. Ent. **96.**

Doius meridianus, griseus see *Falsodoius.*

Domitia aenea **var. n.** *tomentosa* Fr. Guinea p. 53 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Dorcadion aethiops **ab. n.** *kudlai* Slovakia p. 19 figs., HEYROVSKÝ Acta Mus. Siles. (A) **1** 1951.

Dyemus Pasc. a valid genus, not syn. of *Enispia* Pasc.; *purpureopulchra* Gilm. from *Athylia* p. 52, GILMOUR Tijdschr. Ent. **96.**

Enicodes schreibersi Thoms. (=*sarasini* Hell.); *trochilus* a f. of *montrouzieri* p. 11, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 16.—*E. montrouzieri* **var. n.** *rufofemoratus* New Caledonia p. 302, LEPESME & BREUNING Bull. Mus. Hist. nat., Paris (2) **25.**—*E. bougieri, clavus, cylindricus, fractimacula, granulum, latreillei, opacus, perroudi, rugiceps, scripticollis, thomsoni* see *Mimenicodes*; *limbicollis, viridipes* see *Nemaschema*; *univittatus* see *Pulchrenicodes*; *bimaculatus* see *Cephalenicodes*; *gracilis, annulifer* see *Leptenicodes.*

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Enotoschema **gen. n.**, *sericans* **sp. n.** New Caledonia p. 45, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 16.

Estola duncani **sp. n.** Galapagos Is. p. 135, VAN DYKE Occ. Pap. Calif. Acad. Sci. no. 22.

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Eunidia discounivittata p. 11, *puncticollis* Belg. Congo, *cylindricollis, nigritarsis* p. 12, *ruficornis, rufina* p. 13, *quadriflavomaculata, annulicornis* p. 14 S. Rhodesia, *apicefulva, fusca* Eritrea p. 15 **spp. n.** fig., BREUNING Bull. Inst. Sci. nat.

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Frea (*Crossotofrea*) *gnathoenioides* p. 8, (*F.*) *nigrohumeralis* p. 9 **spp. n.** Belg. Congo figs., BREUNING t.c.

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Iberodorcadion fuliginator **ab. n.** *combinatum* France p. 34, PODANY Bull. Soc. ent. Mulhouse **1953.**

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Leptenicodes **gen. n.** for *Enicodes gracilis* Fauv. (type), *E. annulifer* Fauv. p. 14; *quadrilineatus* **sp. n.** New Caledonia p. 16, BREUNING t.c.

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Lepturonota **gen. n.** for *Leptonota tristis* Mont. (type), *L. lifuana* Mont., *Nemaschema inconspicua* Mont., *N. modesta* Mont. p. 56; *loyaltiana* **sp. n.** Loyalty Is. p. 59, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 16.—*L. tristis* **var. n.** *chalybaea* New Caledonia p. 303, LEPESME & BREUNING Bull. Mus. Hist. nat., Paris (2) **25.**

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Mimogmodera congoensis **sp. n.** Belg. Congo p. 174, BREUNING Rev. Zool. Bot. afr. **48.**

Mimorsidis andamanicus **sp. n.** Andaman Is. p. 3 fig., BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Mimosybra trimaculata **sp. n.** New Guinea p. 105, BREUNING Ann. hist.-nat. Mus. hung. (N.S.) **4.**

Moneilema spp. early stages p. 239 figs., DUFFY Monogr. immature stages . . . Cerambycidae.

Monochamus titillator p. 244, *scutellatus* p. 249, *notatus, maculosus*, p. 250, *sutor* p. 251, *sartor* p. 252, *rosenmülleri, galloprovincialis, ruspator* p. 253 early stages figs., DUFFY t.c.—*M. vagus* **subsp. n.** *puncticollis*; *nimbae* p. 53, *lamottei* **spp. n.**; *tuberosus* **subsp. n.** *occidentalis* p. 54 Fr. Guinea figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.—*M. scabiosus* **var. n.** *zabeii*; *mbai* **sp. n.** Ivory Coast p. 98 figs., LEPESME & BREUNING Bull. Soc. ent. Fr. **58.**—*M. chopardi* see *Oxylamia*.

Mystrocnemis fossulata **f. n.** *atricollis* Tanganyika p. 35 fig., BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Nemaschema limbicolle Fauv., *viridipes* Fauv. from *Enicodes* p. 11; *mulsanti* Perr., *lamberti* Mont. distinct spp. p. 33, BREUNING op. cit. **29** no. 16.—*N. inconspicua, modesta* see *Lepturonota*; *filarium* see *Leptaschema*.

Neodorcadion billineatum **ab. n.** *apicenudum* Rumania p. 34, PODANY Bull. Soc. ent. Mulhouse **1953.**

Neoegesina margaretae Gilm. from *Enispia* p. 51, GILMOUR Tijdschr. Ent. **96.**

Neonitocris mangenoti **sp. n.** p. 515 (with **var. n.** *obscurior* p. 516) Fernando Po, BREUNING in LEPESME & BREUNING Bull. Inst. franç. Afr. noire **15.**—*N. alzonai* **sp. n.** Uganda p. 2, BREUINNG Doriana **1** 1952 no. 31.

Nimbanauxesida **subgen. n.** (type *nimbae* sp. n.) see *Anauxesida*.

Niphona hookeri larva p. 262 fig., DUFFY Monogr. immature stages . . . Cerambycidae.

Nitocris major **subsp. n.** *nigrotibialis* Fernando Po p. 517, BREUNING in LEPESME & BREUNING Bull. Inst. franç. Afr. noire **15.**—*N. büttneri* **var. n.** *intermedia* Fr. Guinea p. 65 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Nupserha bidentata **var. n.** *quadripunctata* Fr. Guinea etc. p. 66 figs., LEPESME & BREUNING t.c.—*N. homeyeri* **subsp. n.** *insulana*; *lateri-*

fuga **var. n.** *nigrifrons* Fernando Po p. 517, BREUNING in LEPESME & BREUNING Bull. Inst. franç. Afr. noire **15.**—*N. bidentata* **var. n.** *joveri* Ivory Coast p. 104 figs., LEPESME & BREUNING Bull. Soc. ent. Fr. **58.**—*N. bidentula* **f. n.** *inoculata* p. 72; *aurodiscalis* **sp. n.**; *apicata* **ff. n.** *bilineata* p. 75, *apicefusca, subhumerovittata, mediolatevittata*; *grisea* **ff. n.** *subgrisea* p. 77, *basivittata*; *brachytrita* **f. n.** *fuscoreducta* p. 78 Belg. Congo, BREUNING Explor. Parc nat. Albert, Miss. de Witte (1933–1935) fasc. 79.—*N. bidentula* **ff. n.** *flavooculata, nigropunctata* Belg. Congo; *cerrutii* **sp. n.** Abyssinia p. 34, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Nyctimene tristis F. (=*vittata* Pasc.) p. 11, BREUNING t.c.

Nyctopais viridescens **sp. n.** Belg. Congo p. 6 fig., BREUNING t.c.

Oberea rhodesica S. Rhodesia, *kunbirensis* India **spp. n.** p. 37 fig., BREUNING t.c.—*O. occidentalis* **sp. n.** Ivory Coast p. 104 figs., LEPESME & BREUNING Bull. Soc. ent. Fr. **58.**—*O. erythrocephala* **ab. n.** *brunneicornis* Czechoslovakia p. 50 fig., PODANY Bull. Soc. ent. Mulhouse **1953.**—*O. subdiscoidalis* **sp. n.** Fr. Guinea p. 65 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Obereopsis nimbae **sp. n.** Fr. Guinea p. 63 figs., LEPESME & BREUNING t.c.—*O. villiersi* p. 102, *basiflava* p. 103 **spp. n.** Ivory Coast figs., LEPESME & BREUNING Bull. Soc. ent. Fr. **58.**—*O. apicalis* **f. n.** *apicenigra* N. Rhodesia; *subobsoleta* Gold Coast, *apicaloides* Kenya **spp. n.** p. 36, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.—*O. insularis* **sp. n.** Fernando Po p. 2, BREUNING Doriana **1** 1952 no. 31.—*O. guineensis, bechynei* p. 6, *freyi* (with **ff. n.** *rufoabdominalis* p. 7, *nigrolateralis* p. 8) p. 7 **spp. n.**; *insignis* **f. n.** *nigripennis* p. 6 Fr. Guinea, BREUNING Ent. Arb. **4.**—*O. wittei, holoflavipennis* **spp. n.** p. 80; *minutissima* **f. n.** *rufoampliata* p. 81 Belg. Congo, BREUNING Explor. Parc nat. Albert, Miss. de Witte (1933–1935) fasc. 79.—*O. flaviventris* **sp. n.** Belg. Congo p. 174, BREUNING Rev. Zool. Bot. afr. **48.**—*O. auriceps* p. 514, *trochaini* **spp. n.**; *linearis* **subsp. n.** *aureopubescens* p. 515 Fernando Po, BREUNING in LEPESME & BREUNING Bull. Inst. franç. Afr. noire **15.**

Olenecamptus shanensis figure (omitted in 1952 description) p. 1, GILMOUR Ent. Bl. **49.**

Oncideres jataí **sp. n.** Brazil p. 31, BONDAR Agronomia, Rio de Janeiro **12.**

Oopsis nutator larva p. 157 fig., DUFFY Proc. Hawaii. ent. Soc. **15.**

Othelais transversefasciata **sp. n.** New Guinea p. 100, BREUNING Ann. hist.-nat. Mus. hung. (N.S.) **4.**

Oxylamia ruficornis **sp. n.** Ivory Coast p. 98 figs., LEPESME & BREUNING Bull. Soc. ent. Fr. **58.**—*O. nimbae* **sp. n.** Fr. Guinea; *chopardi* Vill. from *Monochamus* p. 52 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Paraglenea chrysochloris **ab. n.** *breuningi* Japan p. 52 fig., PODANY Bull. Soc. ent. Mulhouse **1953.**

Pedestredorcadion pusillum **ab. n.** *romanicum*; *murrayi* **abb. n.** *rubrum, brunneovittatum, humeratum, savulesci, breuningianum, praesuturatum, mimicum* p. 33; *equestre* **abb. n.** *transversum, apicejunctum, simile, tippmanni, quasiochridense* p. 34 Rumania, PODANY t.c.

Phlyarus cristatus see *Chaetacanthidius.*

Phryneta leprosa early stages p. 262 figs., DUFFY Monogr. immature stages . . Cerambycidae.

Phrynetopsis thomensis **subsp. n.** *principis* Principe I. p. 1, BREUNING Doriana **1** 1952 no. 31.

Phymatogyrus see *Assinia.*

Phytoecia (*Pseudoblepisanis*) *kolbei* **f. n.** *atroampliata* Belg. Congo p. 81, BREUNING Explor. Parc nat. Albert, Miss. de Witte (1933–1935) fasc. 79.—*P.* (*Pseudoblepisanis*) *kolbei* **f. n.** *massarti* Belg. Congo p. 38, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.—*P.* (*Pseudoblepisanis*) *kolbei* **varr. n.** *flavoabdominalis, nigroscutellata* Fr. Guinea p. 64 figs., LEPESME &

BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.—*P.* (*Blepisanis*) *freyi* **sp. n.**; (*Pseudoblepisanis*) *kolbei* **f. n.** *rufoampliata* Fr. Guinea p. 8, BREUNING Ent. Arb. **4.**—*P.* (*Blepisanis*) *flavovittata* **f. n.** *gilbertae* Belg. Congo p. 175, BREUNING Rev. Zool. Bot. afr. **48.**—*P.* (*P.*) *rungsi* **sp. n.** Morocco p. 221, ANTOINE Rev. franç. Ent. **20.**—*P. cosettae* **sp. n.** Morocco p. 60, IABLOKOFF Bull. Soc. ent. Fr. **58.**—*P. argus* **abb. n.** *tichýi* Slovakia, *prokši* USSR p. 20 figs., HEYROVSKÝ Acta Mus. Siles. (A) **1** 1951.—*P.* (*Opsilia*) *coerulescens* **ab. n.** *atra* Czechoslovakia p. 52 fig., PODANY Bull. Soc. ent. Mulhouse **1953.**

Plocamocera see *Pseudodisterna.*

Pogonochaerus caroli **ab. n.** *rufus* France p. 50 fig., PODANY Bull. Soc. ent. Mulhouse **1953.**

Poimenesperus tragonoides **sp. n.** Angola p. 57 fig., LEPESME Publ. cult. Cia Diamant. Angola no. 16.

Pothyne hayashii **sp. n.** Japan p. 19, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Prosoplus (*P.*) *bicoloripennis* p. 101, (*P.*) *cylindricus* p. 102 **spp. n.** New Guinea, BREUNING Ann. hist.-nat. Mus. hung. (N.S.) **4.**—*P. bankii* larva p. 156, DUFFY Proc. Hawaii. ent. Soc. **15.**

Prosopocera lactator var. *bimaculata* Har. (=*françoisiana* Lep.); *l.* **var. n.** *lundae*; (*Alphitopola*) *machadoi* **sp. n.** Angola p. 55 figs., LEPESME Publ. cult. Cia Diamant. Angola no. 16.—*P.* (*Alphitopola*) *hologrisea* Belg. Congo, (*A.*) *flavo-alba* Haut-Sangha **spp. n.** p. 7 fig., BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.—*P.* (*Alphitopola*) *bamakai* **sp. n.** Ivory Coast p. 99 figs., LEPESME & BREUNING Bull. Soc. ent. Fr. **58.**

Pseudischnolea **gen. n.** p. 106, *kaszabi* **sp. n.** New Guinea p. 107, BREUNING Ann. hist.-nat. Mus. hung. (N.S.) **4.**

Pseudodisterna **n. n.** for *Plocamocera* Breun. nec Guér. p. 10, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Pseudohepomidion **gen. n.** p. 1, *granulipenne* **sp. n.** Belg. Congo p. 2 fig., BREUNING t.c.

Pseudonupserha congoensis **f. n.** *bambesae* Belg. Congo p. 35, BREUNING t.c.—*P. wittei* **sp. n.** Belg. Congo p. 78, BREUNING Explor. Parc nat. Albert, Miss. de Witte (1933–1935) fasc. 79.

Pseudostenidea **gen. n.**, *rufescens* **sp. n.** Belg. Congo p. 18 fig., BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Pterolophia (*P.*) *freyi* **sp. n.** Fr. Guinea p. 5, BREUNING Ent. Arb. **4.**—*P. camura* immature stages p. 156 figs., DUFFY Proc. Hawaii. ent. Soc. **15.**—*P. nigroscutellata* **sp. n.** Angola p. 58 fig., LEPESME Publ. cult. Cia Diamant. Angola no. 16.—*P. lateripicta* **var. n.** *mathisi* Cook Is. p. 304, LEPESME & BREUNING Bull. Mus. Hist. nat., Paris (2) **25.**—*P. basileensis* **sp. n.** Fernando Po p. 511, BREUNING in LEPESME & BREUNING Bull. Inst. franç. Afr. noire **15.**

Pulchrenicodes **gen. n.** for *Enicodes univittatus* Fauv. p. 31, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 16.

Ranova similis **sp. n.** Madagascar p. 10 fig., BREUNING op. cit. **29** no. 8.

Ropica birói New Guinea p. 102, *keyensis* Key Is. p. 110 **spp. n.**, BREUNING Ann. hist.-nat. Mus. hung. (N.S.) **4.**

Ropicomimus vitticollis **sp. n.** New Guinea p. 102, BREUNING t.c.

Saperda scalaris **abb. n.** *incompleta, subtypica, punctulata, subpunctulata, subconnexa, conjuncta, falsiconjuncta, apicalis, quasiapiceinclusa* p. 18, *moravica, panini, apiceconjuncta, digitalis, sekerai, humeralis, lineosa, proksi* (also Austria) Czechoslovakia, *jesatkoi, subjesatkoi, pici, winkleri, multipunctata* Austria p. 19, *atanassovi, falsisubconnexa, divisoconjuncta, divisa, divisopunctata, quasisubtypica, bidivisa, pulchra, breuningi, paupera* Czechoslovakia, *nigrina, combinata, aterrima* Austria p. 20, PODANY Ent. NachrBl. **5.**—*S. scalaris* **abb. n.** *apiceinclusa* USSR, *connexa* Slovakia p. 20 figs., HEYROVSKÝ Acta Mus. Siles. (A) **1** 1951.—*S.* (*Compsidia*) *populnea* **ab. n.** *quadripunctata*; *octopunctata* **abb. n.** *slovenica, grisea*; *scalaris* **abb. n.** *irregularis, debatissi, ryzskae* Czechoslovakia p. 52 figs., PODANY Bull.

Soc. ent. Mulhouse **1953**.—*S. discoidea* p. 290, *calcarata* p. 291 larvae figs., DUFFY Monogr. immature stages. . . Cerambycidae.

Scabroschema **gen. n.** for *Leptonota scabricolle* Fauv. p. 41, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 16.

Serixia atroapicalis **sp. n.** Burma p. 20, BREUNING op. cit. **29** no. 8.

Somatidiopsis **gen. n.**, *birói* **sp. n.** New Guinea p. 99, BREUNING Ann. hist.-nat. Mus. hung. (N.S.) **4**.

Sophronica machadoi **sp. n.** Angola p. 59 fig., LEPESME Publ. cult. Cia Diamant. Angola no. 16.—*S. richardmolardi* p. 59, *lamottei*, *calceoides* p. 60 **spp. n.** Fr. Guinea figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.—*S. rhodesiana* **sp. n.** S. Rhodesia p. 17, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.—*S. fuscoscapa* **sp. n.** Belg. Congo p. 174, BREUNING Rev. Zool. Bot. afr. **48**.—*S. bicoloricornis* **f. n.** *major* Fr. Guinea p. 5, BREUNING Ent. Arb. **4**.

Sophroniella flavoapicalis **sp. n.** Ivory Coast p. 101 figs., LEPESME & BREUNING Bull. Soc. ent. Fr. **58**.

Sophronisca angolense **sp. n.** Angola p. 60 fig., LEPESME Publ. cult. Cia Diamant. Angola no. 16.—*S. nigra* **sp. n.** Fr. Guinea p. 59 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Stenellipsis Bates (= *Eurychaena* Bates) p. 1, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 16.—*S. casteli* **sp. n.** New Caledonia p. 304 ; key to spp. of New Caledonia p. 305, LEPESME & BREUNING Bull. Mus. Hist. nat., Paris (2) **25**.

Stenidea annulicornis larva p. 301 fig., DUFFY Monogr. immature stages . . . . Cerambycidae.

Sternotomis centralis **var. n.** *perviridis* Belg. Congo p. 7, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Sybra (*S.*) *fuscoantesignata*, (*S.*) *bialbomaculata*, (*S.*) *biflavoguttata* p 103, (*S.*) *albescens*, (*S.*) *immaculata*, (*S.*) *preapicefasciata* p. 104, (*Trichatelais* **subgen. n.**) *birói* p. 105 New Guinea, (*S.*) *bitriangularis* Key Is. p. 110 **spp. n.**, BREUNING Ann. hist.-nat. Mus. hung. (N.S.) **4**.—*S. alternans* larva p. 158 fig., DUFFY Proc. Hawaii. ent. Soc. **15**.—*S. subfasciata* see *Sybrodiboma*.

Sybrodiboma **gen. n.** for *Sybra subfasciata* Bates p. 16, BREUNING Bull. Inst. Sci. nat. Belg. **29** no. 8.

Synnupserha fordi **sp. n.** Uganda p. 173, DUFFY Ruwenzori Exped. 1934–35 **3**.

Tetraglenes somaliensis **sp. n.** Somalia p. 1, BREUNING Doriana **1** 1952 no. 31.—*T. nimbae* **sp. n.** Fr. Guinea p. 62 figs., LEPESME & BREUNING Mém. Inst. franç. Afr. noire no. 19 1952.

Thyestilla gebleri **ab. n.** *heyrovskyi* Manchuria p. 52 fig., PODANY Bull. Soc. ent. Mulhouse **1953**.

Tmesisternus (*T.*) *triangularis* **sp. n.** New Guinea p. 109, BREUNING Ann. hist.-nat. Mus. hung. (N.S.) **4**.—*T.* (*T.*) *andai* figure (omitted in 1952 description) p. 1, GILMOUR Ent. Bl. **49**.

Tozotomimus transferred to Cerambycidae, q.v.

Tragocephala variegata **var. n.** *angolana* Angola p. 57 fig., LEPESME Publ. cult. Cia Diamant. Angola no. 16.—*T. variegata* **ab. n.** *breuningi* E. Africa p. 50 fig., PODANY Bull. Soc. ent. Mulhouse **1953**.

Trichatelais **subgen. n.** (type *birói* sp. n.) see *Sybra*.

Trichomonochamus **gen. n.** p. 172, *basilewskyi* **sp. n.** Belg. Congo p. 173, BREUNING Rev. Zool. Bot. afr. **48**.

Zipoetes grisescens **f. n.** *incarinatus* Belg. Congo p. 174, BREUNING t.c.

BRUCHIDAE (LARIIDAE).

Bruchus (*Acanthoscelides*) *incaeruleus* **var. n.** *impressicollis* ; (*A.*) *lineatopygus* **var. n.** *sakeensis* ; (*A.*) *particularicornis* **varr. n.** *rutshuruensis*, *kivuensis* p. 4, *alberti*, *wittei*, *congoanus* ; (*Bruchidius*) *multivariegatus* **sp. n.** p. 5 Belg. Congo, PIC Bull. Inst. Sci. nat. Belg. **29** no. 14.

Urodon (*Exurodon*) *reymondi* **sp. n.** Morocco p. 189, HOFFMANN Rev. franç. Ent. **20**.

Phytophaga.

Chrysomelidae of Ruwenzori Expedition, BRYANT Ruwenzori Exped. 1934–35 **3** : 151–164, 7 figs.

Taxonomic study on Chrysomelidae, CHÛJÔ Tech. Bull. Kagawa agric. Coll. **5** : 19–36, 121–136, 7 pls.

Chrysomelidae of Formosa, pts. V, VI, CHÛJÔ Tech. Bull. Kagawa agric. Coll. **4** 1952 : 32–49, 10 figs., 73–91. 16 figs. ; 1953 : 237–249, 11 figs.

Chrysomeloidea of flood area of Niger, JOLIVET Bull. Inst. franç. Afr. noire **15** : 1539–1547, 1 fig.

Chrysomeloidea of Balearic Is., JOLIVET Mém. Inst. Sci. nat. Belg. (2) fasc. 50 : 1–88, 3 pls., 7 figs.

Chrysomelids of north central Mexico, PALLISTER Amer. Mus. Novit. no. 1623 : 1–95, 17 figs.

SAGRIDAE.

Sagra pici E. Africa p. 1506, *habasi* Uganda p. 1507, *descarpentriesi* Ivory Coast, Guinea p. 1508, *jeanneli* Cameroons, Congo, Dahomey p. 1509 **spp. n.** figs., DAVID Bull. Inst. franç. Afr. noire **15**.—*S. buqueti*, *perlucida* distinguishing characters pp. 70–71 figs., DAVID Bull. Soc. ent. Fr. **58**.—*S. nitidissima* **sp. n.** Ivory Coast p. 136, PIC Bull. Soc. ent. Fr. **58**.

AULACOSCELIDAE.

Aulacoscelinae **subfam. n.** p. 19, MONRÓS Ent. Arb. **4**.

Janbechynea **gen. n.**, *paradoxa* **sp. n.** Bolivia p. 21 figs., MONRÓS t.c.

DONACIIDAE.

Plateumaris sericea ab. *viridis* **n. n.** for *micans* Panz. nec Hoppe ; *s.* ab. *levigata* **n. n.** for *violacea* Gyll. nec Pall. nec Hoppe p. 120, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3**.

MEGALOPIDAE.

Agathomerus freudi p. 437, *lineatus* p. 439 **spp. n.** Mexico figs., GUÉRIN Dusenia **3** 1952.

Homalopterus atrovirens **sp. n.** N. Colombia p. 293 fig., PAPP Acta zool. lilloana **10** 1952.

Mastosthethus punctatus Venezuela p. 435, *quadrilineatus* Mexico p. 436 **spp. n.** figs., GUÉRIN Dusenia **3** 1952.

MEGASCELIDAE.

Megascelis inscriptus **ab. n.** *columbicus* ; *joliveti* **sp. n.** Colombia p. 291 figs., PAPP Acta zool. lilloana **10** 1952.

ORSODACNIDAE.

Orsodacne cerasi **abb. n.** *budensis*, *simplex* (also Slovakia, Rumania, Croatia) p. 120, *apicalis* (also Slavonia), *humerata*, *tenuecincta* (also Rumania), *pulchra* (also Rumania) ; *lineola* **ab. n.** *suturata* Hungary p. 121, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3**.

Syneta revision of World spp. pp. 23–82, key p. 37 ; *simplex* **subsp. n.** *subalpina* Br. Columbia, Alberta, Montana etc. p. 74 figs., EDWARDS Wasmann J. Biol. **11**.

Zeugophora hozumii **sp. n.** Japan p. 1 fig., CHÛJÔ Bull. Inst. Sci. nat. Belg. **29** no. 9.

CRIOCERIDAE.

List of Criocerid genotypes, MONRÓS 1951 Acta zool. lilloana **11** : 477–482.

Crioceris quatuordecimpunctata **abb. n.** *externepunctata*, *internepunctata* Hungary p. 120, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3**.

Hapsidolemoides **subgen. n.** (type *bosqi* Monrós) see *Lema*.

Lema (*Quasilema* p. 468, *Hapsidolemoides* p. 470, *Neolema*, *Parhapsidolema* p. 472, *Pachylema* p. 473 **subgenn. n.**) ; (*Q.*) *vianai* p. 468, (*Parhapsidolema*) *simplissima* p. 472 Argentina, (*Hapsidolemoides*) *schadei* Paraguay p. 471, (*Pachylema*) *guerini* Brazil p. 474 **spp. n.**; (*Q.*) *mimica* chromatic variation p. 470 ; (*Q.*) *xanthopus* Guér. (=*platanensis* Pic, *p.* var. *obscuripes* P., *viridiventris* P.); (*Q.*) *bilineata* Germ. (=*wagneri* Pic) p. 475 ; (*Q.*) *proxima* Burm. (=*maculipes* Pic) ; (*Neolema*) *liliacea* Burm. (=*quinquevittata* Pic) ; (*N.*) *dorsalis* Ol. (=*humerosignata* Pic, *gerardi* P., *nigromaculata* P., *viridescens* P., *flavescens* P., *tucumana* P., *bicolori-cornis* P., *ruficolor* P., *diversiceps* P.,

bisdisjuncta P., *tapenagosa* P., *latejuncta* P., *obscurithorax* P., *praeapicalis* P., *unicoloripes* P., *dorsalis* varr. *mediosignata* P., *medionotata* P., *unisignata* P., *trisignata* P., *bisignata* P.); *annuliantennata* **n. n.** for *annulicornis* Pic 1941 nec 1924 p. 476; *chromatopus* **n. n.** for *bicoloripes* Pic 1949 nec 1925; *bispilota* **n. n.** for *bipustulata* Jac. nec Montr.; *erythrobasalis* **n. n.** for *rufobasalis* Hze. nec Pic; *tuberculosa* **n. n.** for *tuberculata* Pic nec Ol.; *multichroma* **n. n.** for *variegata* Pic nec Jac.; (*Neolema*) *elegantissima* **n. n.** for *elegans* Monrós nec Jac. p. 477, Monrós Acta zool. lilloana **11** 1951.—*L. edwardsi* **sp. n.** Uganda p. 152, Bryant Ruwenzori Exped. 1934–35 **3.**—*L. polichroma* p. 33, *melodiosa* p. 42, *autoptera* p. 45, *lebiana* p. 46, *chiriguana* p. 47 **ssp. n.** N.E. Argentina figs., Monrós Acta zool. lilloana **10** 1952.

Neolema **subgen. n.** (type *histrionica* Lac.) see *Lema*.

Pachylema **subgen. n.** (type *violacea* Lac.) see *Lema*.

Parhapsidolema **subgen. n.** (type *dolichosoma* Monrós) see *Lema*.

Plectonycha xibixibi **sp. n.** N.E. Argentina p. 48 fig., Monrós Acta zool. lilloana **10** 1952.

Quasilema **subgen. n.** (type *apicalis* Lac.) see *Lema*.

Clytridae.

Actheomorpha characters p. 38; *sauteri* re-description p. 40; *taiwana* **sp. n.** Formosa p. 41 fig., Chûjô Tech. Bull. Kagawa agric. Coll. **4** 1952.

Antipa ugandae **sp. n.** Uganda p. 152 figs., Bryant Ruwenzori Exped. 1934–35 **3.**

Clytrasoma characters p. 42; *palliata* re-description p. 43 figs., Chûjô Tech. Bull. Kagawa agric. Coll. **4** 1952.

Coptocephala characters p. 82; (*Physauchenia*) *pallens* key to varr. p. 87; *p.* **var. n.** *octonotata* Formosa p. 89, Chûjô t.c.—*C. unifasciata* ab. *conjuncta* **n. n.** for *quadrimaculata* Lac. nec L. p. 121; *u.* ab. *flavipes* **n. n.** for *femoralis* Kraatz nec Küst.; *rubicunda* **abb. n.** *connexa*, *efasciata* Hungary p. 122, Csiki Ann. hist.-nat. Mus. hung. (N.S.) **3.**—*C. rungsi* **sp. n.** (with **var. n.** *kocheri*) Morocco p. 62, Antoine C.R. Soc. Sci. nat. Maroc **1953.**

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Family changed to Chlamisidae, Jolivet Rev. Zool. Bot. afr. **47** : 259.

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Chrysochloa speciosissima **ab. n.** *stilleri* Croatia ; *s.* ab. *guidonis* **n. n.** for *violacicollis* Dep. nec Depoli p. 130, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**—*C.* (*Romalorina*) *péneaui* **sp. n.** France p. 13 ; (*Romalorina*) *alpestris* ab. *putoni*, (*R.*) *gloriosa* compared p. 37 ; (*R.*) *bifrons* ab. *stussineri* characters p. 38 figs., DAVID Bull. Soc. ent. Fr. **58.**—*C.* (*Cobosorina* **subgen. n.** p. 186) figs., DAVID Rev. franç. Ent. **20.**—*C. perinii* **sp. n.** Italy p. 132 figs., JAKOB in MANDL Studi trentini **30.**—*C.* (*Allorina*) *colasi* **sp. n.** Spain p. 5 figs., COBOS Boll. Ass. romana Ent. **7** 1952.

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HALTICIDAE.

Halticinae of environs of Cracow, MAZUROWA 1951 Bull. ent. Pologne **20**: 102–117.

Altica rockefelleri **sp. n.** Mexico p.72 figs., PALLISTER Amer. Mus. Novit. no. 1623.

Aphthona occidentalis, tristis **spp. n.** Canary Is. p. 12 figs., LINDBERG Comment. biol. **13** no. 12.—*A. cylindrica* **sp. n.** Morocco p. 187, HOFFMANN Rev. franç. Ent. **20.**

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Dibolia ifranensis **sp. n.** Morocco p. 188, HOFFMANN Rev. franç. Ent. **20.**

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Psylliodes chrysocephala **ab. n.** *tristicula* Hungary p. 134, CSIKI t.c. —*P. aemulans* **sp. n.** Canary Is. p. 12 figs., LINDBERG Comment. biol. **13** no. 12.

Sphaeroderma dorcatomoides larva p. 367 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

Strabala restored p. 123; *ferruginea* Ol. designated type p. 127; revision (key p. 127) pp. 121–134; *rufa* (from *Haltica* p. 127) **subsp. n.** *floridana* Florida p. 128; *acuminata* (with **subspp. n.** *teapensis* Mexico, *costaricensis* Costa Rica, Guatemala p. 129) p. 128, *rotunda* Mexico, Panama, Texas p. 130, *colombiana* Colombia, Venezuela p. 133, *trinitatis* Trinidad p. 134 **spp. n.**; *ambulans* (from *Haltica*) **subspp. n.** *jamaicensis* Jamaica p. 131, *puertoricensis* Porto Rico p. 132 figs., BLAKE Proc. U.S. nat. Mus. **103** no. 3319.

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Diabrotica neoallardi **sp. n.** Peru p. 232 figs., BLAKE J. Wash. Acad. Sci. **43.**

Exora californica **sp. n.** California p. 52 figs., WILCOX Ohio J. Sci. **53.**

Galeruca tanaceti early stages p. 293 figs., PREVETT Ent. mon. Mag. **89.** —*G. hunyadensis* **sp. n.** Rumania p. 133, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3.**

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Triarius santarosarum **sp. n.** U.S.A. p. 51 figs., WILCOX Ohio J. Sci. **53**.

HISPIDAE.

Supplement to "The Hispine beetles of China", GRESSITT Pan-Pacif. Ent. **39** : 121–126, 3 figs.

Some Hispids from Brazil and Argentina, UHMANN 1952 Acta zool. lilloana **12** : 331–341, 7 figs.

Some Hispinae from Java, UHMANN Idea **9** : 89–91.

Agonita picea, sculpturata **spp. n.** China p. 124 figs., GRESSITT Pan-Pacif. Ent. **29**.—*A. pallipes* pupa p. 89, UHMANN Idea **9**.

Anoplitis bondari **sp. n.** Brazil p. 162 figs., UHMANN Mem. Soc. cubana Hist. nat. **21**.

Brontispa lateralis **sp. n.** New Guinea p. 872 fig., UHMANN Ann. Mag. nat. Hist. (12) **6**.

Callispa penangana **sp. n.** Malay Pen. p. 871 fig., UHMANN t.c.—*C. semirufa* re-description p. 654 fig., UHMANN Beitr. Ent. **3**.

Cephaloleia picta **chrom. n.** *interrupta* Brazil p. 333 figs., UHMANN Acta zool. lilloana **12** 1952.

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Coelenomenodera nigricollis **sp. n.** Madagascar p. 272, PIC Mém. Inst. sci. Madagascar (E) **3**.

Dactylispa hystrix larva p. 368 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.—*D. pubicollis* pupa p. 134 figs., UHMANN Mitt. zool. Mus. Berl. **29**.—*D. ignorata* **sp. n.** Belg. Congo p. 2 ; key to African spp. allied to *chapuisii* p. 4, UHMANN Bull. Inst. Sci. nat. Belg. **29** no. 15.

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Heterispa vinula westwoodi pupa p. 172 fig., UHMANN Ent. Bl. **49**.

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Neodownesia **gen. n.** pp. 121, 227, *rubra* **sp. n.** China p. 122 figs., GRESSITT Pan-Pacif. Ent. **29**.

Oxychalepus anchora pupa p. 169, UHMANN Ent. Bl. **49**.

Pentispa rockefelleri **sp. n.** Mexico p. 84 figs., PALLISTER Amer. Mus. Novit. no. 1623.

Scoloenopla lineolata **sp. n.** Ecuador p. 874 ; *obscurovittata* characters p. 875, UHMANN Ann. Mag. nat. Hist. (12) **6**.—*S. roseicollis* **sp. n.** Brazil p. 166 figs., SPAETH in UHMANN Mem. Soc. cubana Hist. nat. **21**.

Temnochalepus lugubris **chrom. n.** *binotatus* Brazil p. 336 figs., UHMANN Acta zool. lilloana **12** 1952.

Uroplata triangula **sp. n.** Brazil p. 334 figs., UHMANN t.c.—*U. emilii* further description p. 7, UHMANN Bull. Inst. Sci. nat. Belg. **29** no. 15.—*U.* (*Godiohispa*) *girardi* **f. n.** *rectangula* Brazil p. 165 figs., UHMANN Mem. Soc. cubana Hist. nat. **21**.—*U. fusca* pupa ; *curvatipes* Pic a f. of *f.* p. 171, UHMANN Ent. Bl. **49**.

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Catalogue of some American Cassidinae, MONRÓS & VIANA 1951 Acta zool. lilloana **11** : 380–395.

Calyptocephala brevicornis re-description p. 378 fig., MONRÓS & VIANA Acta zool. lilloana **11** 1951.

Cassida (*Mionycha*) *azurea* **ab.** *femorata* **n. n.** for *ornata* Creutz nec F. ; *vibex* **ab. n.** *significata* Hungary p. 134, CSIKI Ann. hist.-nat. Mus. hung. (N.S.) **3**.

Dolichotoma waehneri see *Glima mirabilis*.

Glima mirabilis Boh. (=*Dolichotoma waehneri* Gthr.) p. 467 (note), SPAETH in GÜNTHER Arch. Naturgesch. (N.S.) **9** 1940.

Spaethiella characters p. 372; *crassicornis* p. 373, *submetallica* p. 376 re-descriptions figs., MONRÓS & VIANA Acta zool. lilloana **11** 1951.

HYMENOPTERA.

List of Hymenoptera of Penikese I., Massachusetts, COOPER Ent. News **64** : 29–36.

Some Hymenoptera from environs of Warsaw, GŁOWACKI Fragm. faun. Mus. zool. polon. **6** : 501–523.

Hymenoptera of Mt. Pollino, S. Italy, GUIGLIA Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 9 : 1–28.

Hymenoptera of Sardinia, I, INVREA 1952 Atti. Soc. ital. Sci. nat. **91** : 220–228.

List of Hymenoptera of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl. : 40–47, figs.

Aculeata of the Bimini Island group, Bahamas, Br. W. Indies, KROMBEIN Amer. Mus. Novit. no. 1633 : 1–29, 5 figs.

List of wasps of Kill Devil Hills, N. Carolina, KROMBEIN Proc. ent. Soc. Wash. **55** : 113–134.

Biology and taxonomy of Aculeata in coastal area of N. Carolina, KROMBEIN Wasmann J. Biol. **10** : 257–341.

Key to famm. of Hymenopterous larvae, MICHENER Univ. Kansas Sci. Bull. **35** : 993.

List of Hymenoptera collected in Centr. Sahara, 1947, REYMOND Bull. Soc. Sci. nat. Maroc **32** : 85–87.

List of Arctic Alaskan Hymenoptera, WEBER Ent. News **64** : 256–258.

Apoidea.

APIDAE (*s. l.*).

Revision of Apidini (keys p. 529), MAA Treubia **21** : 525–640, 154 figs.

Bees of Cyprus, IV, MAVROMOUSTAKIS Ann. Mag. nat. Hist. (12) **6** : 769–781.

Some Anthidiine bees from Palestine, IV, MAVROMOUSTAKIS Ann. Mag. nat. Hist. (12) **6** : 791–796.

Comparative studies of known bee larvae, MICHENER Univ. Kansas Sci. Bull. **35** : 987–1102, 287 figs.

Notes on Megachilidae of Bolivia, Peru & Chile, I, MOURE Dusenia **4** : 113–124.

Apoidea collected by Dr. G. Soika in Apulia, Italy, 1948, PITTIONI Mem. Biogeogr. adriat. **2** : 49–62, 5 figs.

Apidae of S.W. Turkmenistan, POPOV 1952 Trud. zool. Inst. Akad. Nauk SSSR **10** : 61–117, 13 figs.

Bees of the Portland district, Victoria, Australia, RAYMENT 39 pp., 1 pl., 3 figs.

Some bees from Tasmania, RAYMENT Vict. Nat. **70** : 68–71, 12 figs.

Systematic study of bumblebees of Formosa, SAKAGAMI Kontyû **18** 1950 : 104–113 [not seen].

Allodape halictoides **sp. n.** S. Africa p. 12 figs., SKAIFE J. ent. Soc. S. Afr. **16**.

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Anthidium malacopygum synonymy, characters; *popovi* Tadjhikistan p. 637, *wahrmanicum* Palestine p. 791 **spp. n.**; *bytinskii* ♂ p. 793; *undulatiforme* ♀ p. 794, MAVROMOUSTAKIS t.c.—*A. atriceps*, *sibiricum* see *Dianthidium*.

Anthocopa (*Haetosmia* **subgen. n.** p. 104) figs., Popov Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

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Stelodides **subgen. n.** (type *euzona* Pérez) see *Megachile*.

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SPHEGIDAE (*s.l.*).

Some Sphegidae in the A. Costa collection, DE BEAUMONT Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 10: 1–15.

Distribution list of Sphegids of Mauretania, DE BEAUMONT Bull. Inst. franç. Afr. noire **15**: 171–177.

Sphegids collected by Swiss Mission in Morocco 1947, DE BEAUMONT Bull. Soc. Sci. nat. Maroc **32**: 107–131, 7 figs.

Notes on some Sphegid types of Dahlbom, DE BEAUMONT Opusc. ent. **18**: 193–198.

Application of logarithmic series to classification of Crabronids, DEHALU & LECLERCQ 1951 Ann. Soc. zool. Belg. **82**: 67–82, 2 figs.

New and little known Sphegidae of Tadzhikistan, GUSSAKOVSKIĬ 1952 Trud. zool. Inst. Akad. Nauk SSSR **10**: 212–288, 31 figs.

List of Spheginae of Madagascar, LECLERCQ Rev. Zool. Bot. afr. **48**: 210–211.

Chlorionini of Argentina and Chile (keys p. 76), WILLINK 1951 Acta zool. lilloana **11**: 53–225, 145 figs.

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Tachysphex French spp. pp. 14–15, DE BEAUMONT Bull. Soc. ent. Fr. **58.** —*T. simillimus* (also Uzbekistan, Kazakhstan) p. 235, *lebedevi* (also E. Persia, Turkmenistan, Cyprus) p. 238, *tadzhicus* p. 239, *confinis* (also Uzbekistan, Kazakhstan), *sericans* (also Turkmenistan) p. 241, *argentatus* p. 242, *blattivorus* (also Uzbekistan) p. 244, *rugosus* (also Uzbekistan, Transcaucasia, Crimea) p. 245, *radiatus* p. 246 **spp. n.** Tadzhikistan figs., GUSSAKOVSKIĬ Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

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Trypoxylon sogdianum **sp. n.** Tadzhikistan p. 253 figs., GUSSAKOVSKIĬ Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Vespoidea.

BETHYLIDAE, DRYINIDAE.

Classification of Dryinidae (list of genn. p. 52, key p. 53), RICHARDS Trans. R. ent. Soc. Lond. **104** : 51–70, 11 figs.

Anteon Jur. (=*Liodryinus* Kieff.) p. 54, RICHARDS Trans. R. ent. Soc. Lond. **104.**

Bruesia see *Braunsomeria* (TIPHIIDAE).

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Ctenodryinus see *Neodryinus.*

Dryinus burgeoni p. 142, *basilewskyi* p. 143 **spp. n.** Belg. Congo, BENOIT Rev. Zool. Bot. afr. **47.**

Leptodryinus **subgen. n.** (type *leptopus* sp. n.) see *Neodryinus.*

Lestodryinus ampuliciformis see *Mesodryinus.*

Liodryinus see *Anteon.*

Megadryinus **gen. n.**, *magnificus* **sp. n.** Trinidad p. 55 figs., RICHARDS Trans. R. ent. Soc. Lond. **104.**

Mercetia Perk. transferred from Dryininae to Gonatopinae p. 54, RICHARDS t.c.

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Neodryinus Perk. transferred from Dryininae to Gonatopinae p. 54 ; (=*Phanerodryinus* Roepke, *Ctenodryinus* Arlé) ; *Prodryinus* Kieff. (=*Psilodryinus* K.) reduced to subgen. ; *brachycerus* p. 61, *acuticollis* p. 62 re-descriptions ; *lawanae* Malaya p. 64, (*Leptodryinus* **subgen. n.** p. 67) *leptopus* Borneo p. 66 **spp. n.** figs., RICHARDS Trans. R. ent. Soc. Lond. **104.**

Phanerodryinus see *Neodryinus.*

Prodryinus see *Neodryinus.*

Psilodryinus see *Neodryinus.*

Rhopalosoma nearcticum larval morphology pp. 25–31 figs., GURNEY Proc. U.S. nat. Mus. **103** no. 3313.

SCOLIIDAE (including TIPHIIDAE).

Catalogue of Scoliidae (pp. 124–126) and Tiphiidae (pp. 126–128) of Hungary and neighbouring regions, BAJÁRI Ann. hist.-nat. Mus. hung. (N.S.) **4.**

African Tiphiidae, JACOT-GUILLARMOD Proc. R. ent. Soc. Lond. (B) **22** : 15–18.

Braunsomeria Turn. (=*Bruesia* Kieff., *Bruesiola* K. (from Bethylidae)) ; *quadraticeps* T. (=*Bruesiola adjacens* K., *B. dubia* K.) p. 15 ; *atriceps* T. (=*B. distans* K.) p. 16, JACOT-GUILLARMOD Proc. R. ent. Soc. Lond. (B) **22.**

Elis euryclea see *Mesa angolensis.*

Meria Ill. for African spp. placed in *Myzine* by recent authors ; *perornata* Turn. (=*Plesia pacificatrix* Cam.), *infradentata* T. (=*Pseudomeria mitida* Berl.) from *Myzine* p. 17, JACOT-GUILLARMOD Proc. R. ent. Soc. Lond. (B) **22.**

Mesa Sauss. for African spp. placed in *Elis* and *Plesia*; *capensis* Lep. (=*Myzine nigrita* Turn.) p. 17, *adelogamia* T. from *Plesia*; *capitata* Sm. (=*clavata* Sauss.) from *Myzine*; *angolensis* Berl. (=*Elis euryclea* T.) p. 18, JACOT-GUILLARMOD t.c.

Myzine nigrita see *Mesa capensis*; *capitata* (*clavata*) see *Mesa*; *perornata*, *infradentata* see *Meria*.

Myzinum apicale **subsp. n.** *cazieri* Bimini Is., Bahamas p. 6 figs., KROMBEIN Amer. Mus. Novit. no. 1633.

Plesia capensis, *adelogamia* see *Mesa*; *pacificatrix* see *Meria perornata*.

Pseudomeria mitida see *Meria infradentata*.

Tiphia transvaalensis Cam. (=*pedestris* Gerst., *turneri* Kromb.) p. 18, JACOT-GUILLARMOD Proc. R. ent. Soc. Lond. (B) **22**.—*T. dryophila* **sp. n.** N. Carolina p. 301, KROMBEIN Wasmann J. Biol. **10**.

SAPYGIDAE.

Catalogue of Sapygidae of Hungary and neighbouring regions, BAJÁRI Ann. hist.-nat. Mus. hung. (N.S.) **4**: 123–124.

MUTILLIDAE

(including MYRMOSIDAE).

Mutillidae of Sardinia, I, INVREA 1952 Boll. Zool. agrar. Bachic. **18**: 81–86.

Apterogynidae, Mutillidae and Myrmosidae of Swiss Mission to Morocco, 1947, INVREA Bull. Soc. Sci. nat. Maroc **32**: 269–299.

Dasylabris maura **var. n.** *krügeri* Tripolitania p. 17, INVREA Boll. Soc. ent. ital. **83**.—*D. maura* subsp. *libyca* **f. n.** *trilineata* p. 293; *agadirica* p. 296, *lyauteyi* p. 297 **spp. n.** Morocco, INVREA Bull. Soc. Sci. nat. Maroc **32**.

Dasymutilla identification of sexes of *quadriguttata* & *castor* groups p. 310, KROMBEIN Wasmann J. Biol. **10**.

Ephutomorpha auricrucis **sp. n.** Victoria, Australia; *basilauta* ♂ p. 11 fig., RAYMENT Bees Portland District.

Myrmilla mauritanica **sp. n.** Morocco p. 274, INVREA Bull. Soc. Sci. nat. Maroc **32**.

Myrmosa revision of Italian spp. (keys p. 8) pp. 5–21; (*M.*) *nigriceps* **var. n.** *gaullei* Constantinople; (*M.*) *bischoffi* **n. n.** for *nigriceps* Bisch. nec Saund. p. 20 figs., INVREA Mem. Soc. ent. ital. **31** 1952.—*M. beaumonti* **sp. n.** (with **var. n.** *scutellata* p. 273) Morocco p. 272, INVREA Bull. Soc. Sci. nat. Maroc **32**.—*M. naefi* **sp. n.** Algeria p. 94, INVREA Boll. Soc. ent. ital. **82**.

Pseudomethoca aeetis Fox a subsp. of *sanbornii* Blake p. 308, KROMBEIN Wasmann J. Biol. **10**.

Smicromyrme viduata subsp. *tunensis* **f. n.** *triplex* p. 277; *gineri* p. 278, *rectagonum* (with **var. n.** *dunalis* p. 280) p. 279, *subtilis* p. 280, *rubidula* p. 282, *beaumonti* p. 283, *jacobi* p. 285 (with **varr. n.** *bitriangulata*, *rubricula*), *defixa* p. 287, *implicata* p. 288, *naefi* p. 290, *ferdinandi* p. 291 **spp. n.**; *libyca* **varr. n.** *femoralis*, *obscurata* p. 282 Morocco, INVREA Bull. Soc. Sci. nat. Maroc **32**.—*S. ceresae* **sp. n.** Sardinia p. 227, INVREA Atti. Soc. ital. Sci. nat. **91** 1952.—*S. sabatia* p. 9, *fertoni* (also Corsica, Albania, Cyprus, Dalmatia) p. 11 Italy, *hierosolymitana* p. 12, *gebatana* p. 13, *schemeana* p. 15 Palestine **spp. n.**; *rufipes* **var. n.** *berlandi* Corsica p. 16 figs., INVREA Boll. Soc. ent. ital. **83**.—*S. pardoi* p. 126, *mateui* p. 128 **spp. n.** N. Africa figs., SUÁREZ Boll. Soc. ent. ital. **83**.

POMPILIDAE (PSAMMOCHARIDAE).

Comparative ethology and systematics of spider wasps, EVANS Syst. Zool. **2**: 155–172, 5 figs.

New and little known Psammocharidae of Tadzhikistan, GUSSAKOVSKIĬ 1952 Trud. zool. Inst. Akad. Nauk SSSR **10**: 200–212, 7 figs.

Some Italian Pompilids, MÓCZÁR Boll. Ist. Ent. Univ. Bologna **19**: 387–389.

Allaporus revision of Mexican spp. pp. 26–31 (key p. 26); *elegantulus* p. 27, *toltecus* p. 31 **spp. n.** Mexico figs., EVANS J. Kans. ent. Soc. **26**.

Anoplius concinnus Dahlb. (= *Pompilus niger* Rad., *P. ecclesiasticus* D.-T.); *prophanorum* **n. n.** for *ecclesiasticus* Haupt nec D.-T. p. 206, GUSSAKOVSKIĬ Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.—*A. apiculatus autumnalis* early stages p. 69 figs., EVANS, LIN & YOSHIMOTO J. N.Y. ent. Soc. **61.**—*A.* (*Arachnophroctonus*) *insignis* **subsp. n.** *bahamas* p. 9; (*Pompilinus*) *scintillatus* **sp. n.** p. 12 Bimini Is., Bahamas figs., KROMBEIN Amer. Mus. Novit. no. 1633.—*A. guatemalensis* Guatemala p. 154, *subimbellis* Virginia p. 155 **spp. n.** figs., DREISBACH Amer. Midl. Nat. **48.**

Anopompilinus arnaudi **sp. n.** California p. 153 figs., DREISBACH t.c.

Chrysopepsis **subgen. n.** (type *speciosissima* Luc.) see *Pepsis.*

Cryptocheilus key to spp. of Middle Danubian Basin and the Carpathians p. 35; *richardsi* **sp. n.** Hungary p. 40, MÓCZÁR Proc. R. ent. Soc. Lond. (B) **22.**

Dicyrtomellus oxianus Guss. from *Psammochares* p. 205, GUSSAKOVSKIĬ Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Dinopepsis **subgen. n.** (type *frivaldszkyi* Mocs.) see *Pepsis.*

Episyron trispinosus **sp. n.** Tadzhikistan p. 204, GUSSAKOVSKIĬ Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Evagetes mohave ♂♀ p. 320, KROMBEIN Wasmann J. Biol. **10.**

Hemipepsis revision of Javanese spp. (key p. 687) pp. 685–724; *crassinervis* p. 703, *aureomicans* (HAUPT) p. 705, *velutina* p. 707, *vulcanica* p. 715, *jacobsoni* p. 716, (*Rhodopepsis* **subgen. n.** p. 718) *nigricornis*, (*R.*) *quadridentata* p. 721, *kangeanensis* p. 723 **spp. n.**; (*R.*) *mellerborgi* **subsp. n.** *betremi* p. 712; (*R.*) *fervida* **subsp. n.** *adelpha* p. 720 Java figs., VAN DER VECHT & WILCKE Treubia **21.**—*H.* annotated list of Oriental spp. pp. 1–17; *diselene* Sm. (= *Mygnimia ducalis* Sm.) a subsp. of *speculifer* p. 16. VAN DER VECHT Treubia **22.**

Homonotus turanicus, collaris **spp. n.** Tadzhikistan p. 211, GUSSAKOVSKIĬ Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Lepidocnemis antiquus re-description p. 284 fig., DEL JUNCO Y REYES Eos **29.**

Mygnimia ducalis see *Hemipepsis speculifer* subsp. *diselene.*

Ovatopepsis **subgen. n.** (type *elevata* F.) see *Pepsis.*

Paracyphononyx pavlovskii **sp. n.** Tadzhikistan, Turkmenistan, E. Persia p. 202 figs., GUSSAKOVSKIĬ Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Pepsis key to subgenn., S. American groups and spp. pp. 311–414; (*Ovatopepsis* pp. 321, 395, *Dinopepsis* pp. 322, 396, *Chrysopepsis* pp. 232, 400, *Titanopepsis* pp. 323, 402 **subgenn. n.**); (*P.*) *analis* pp. 327, 328, (*P.*) *denserugosa*, (*P.*) *cavillatrix* p. 341, (*P.*) *procera*, (*P.*) *arcuata*, (*P.*) *recterugosa* p. 342, (*P.*) *atropos* p. 343, (*P.*) *splendida*, (*P.*) *coeruleoviridis* p. 350, (*P.*) *semilucana* p. 355, (*P.*) *capitata* p. 366, (*P.*) *plaumanni* p. 368, (*P.*) *ogloblini* p. 369, (*P.*) *diversa* p.394 Brazil, (*P.*) *pulchricornis* p. 329, (*P.*) *viridaurea* p. 344, (*P.*) *aequalis*, (*P.*) *inaequalis* p. 346, (*P.*) *helenae* p. 349, (*P.*) *azurea* p. 350, (*P.*) *nigroprasina* p. 351, (*P.*) *scalaris* p. 386 Peru, (*P.*) *opimicornis* p. 337, (*P.*) *deletrix* p. 369, (*P.*) *bruneipes* p. 384, (*P.*) *brachynotus* p. 392, (*P.*) *diagonalis* p. 394, (*O.*) *cristata* p. 396 Paraguay, (*P.*) *basinigra* p. 359, (*P.*) *praetexta* p. 362, (*P.*) *pallidipennis* p. 363 Costa Rica, (*P.*) *limbella* Chile, (*P.*) *artemis* Argentina p. 370, (*P.*) *adversatrix* Uruguay, Brazil p. 373, (*P.*) *adusta* p. 384, (*P.*) *subruficornis* p. 390, (*Gigantopepsis*) *pellita* p. 400 Ecuador, (*P.*) *omniviolacea* Colombia p. 390, (*P.*) *discrepans* locality unknown p. 395 **spp. n.** figs., HAUPT Nova Acta Leop. (N.F.) **15** 1952 no. 109.

Pompilinus utahensis p. 145, *submarginatus* p. 146, *shappirioi* p. 148, *basirufus* p. 149 U.S.A., *minutus* Mexico p. 147 **spp. n.** figs., DREISBACH Amer. Midl. Nat. **48.**

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Psammochares (*Ridestulus*) *suspiciosus* p. 206, (*R.*) *pulchellus* p. 207 **spp. n.** Tadzhikistan figs., GUSSAKOVSKIĬ Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.—*P. oxianus* see *Dicyrtomellus*.

Pycnopompilus parvus **sp. n.** Utah p. 152 figs., DREISBACH Amer. Midl. Nat. **48**.

Rhodopepsis **subgen. n.** (type *fervida* Sm.) see *Hemipepsis*.

Salius annulatilis **subsp. n.** *caspius* Syria, Persia, S.E. Transcaucasia, Centr. Asia p. 200; *nigritulus* p. 201, *nigripennis* p. 202 **spp. n.** Tadzhikistan figs., GUSSAKOVSKIĬ Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Sophropompilus sericans **sp. n.** Tadzhikistan, Uzbekistan p. 209 fig., GUSSAKOVSKIĬ t.c.

Tachyagetes nigripennis **sp. n.** Tadzhikistan p. 208 fig., GUSSAKOVSKIĬ t.c.

Titanopepsis **subgen. n.** (type *optima* Sm.) see *Pepsis*.

VESPIDAE (including MASARIDAE, EUMENIDAE).

Vespids of Réserve du Nimba, Fr. Guinea, BERLAND 1952 Mém. Inst. franç. Afr. noire no. 19: 271–276.

List of Portuguese and Spanish wasps, BLÜTHGEN Mem. Estud. Mus. zool. Univ. Coimbra no. 218: 1–23.

Additions and corrections to the Vespids of Switzerland, BLÜTHGEN 1952 Mitt. schweiz. ent. Ges. **25**: 349–353.

Eumeninae of Prague Nat. Mus. Exped. to Turkey, GIORDANI SOIKA 1952 Acta ent. Mus. nat. Pragae **27** no. 394: 375–386, 4 figs.

Eumeninae of Swiss Mission to Morocco, 1947, GIORDANI SOIKA Bull. Soc. Sci. nat. Maroc **32**: 235–267, 4 figs.

Vespidae of Adriatic region, GIORDANI SOIKA Mem. Biogeogr. adriat. **2**: 33–42.

Argentine Polistinae, Polybiinae (excl. *Mischocyttarus*), keys p. 108, WILLINK 1952 Acta zool. lilloana **10**: 105–151, 34 figs.

Allodynerus key to known spp.; *delphinalis* Gir. a valid sp. not syn. of *floricola* Sss. p. 50; *delphinalis* **subspp. n.** *sardous* Sardinia, *fallax* Transcaspia p. 54; *königi* ♀ p. 55; *nigricornis* F. Mor. (=*binominatus* Blüthg.); *mandschuricus* **sp. n.** Manchuria p. 57, BLÜTHGEN Zool. Anz. **150**.

Ancistrocerus liliae **sp. n.** Morocco p. 243, GIORDANI SOIKA Bull. Soc. Sci. nat. Maroc **32**.

Eumenes (*E.*) *pomiformis* **subsp. n.** *turcicus*; (*E.*) *mediterraneus* **subsp. n.** *anatolicus* p. 376 Turkey figs., GIORDANI SOIKA Acta ent. Mus. nat. Pragae **27** 1952 no. 394.

Eustenancistrocerus transitorius **subsp. n.** *hoberlandti* Turkey p. 378, GIORDANI SOIKA t.c.—*E. transitorius* **subsp. n.** *mauritaniensis* Morocco p. 246, GIORDANI SOIKA Bull. Soc. Sci. nat. Maroc **32**.

Hoplomerus (*Spinicoxa*) *antigai* ♀ p. 19, BLÜTHGEN Mem. Estud. Mus. zool. Univ. Coimbra no. 218.

Leptochilus (*Lionotulus*) *castilianus* Blüthg., (*L.*) *tarsatus* Sss. distinguishing characters; (*L.*) *lusitanicus* Portugal p. 12, *andalusicus* Spain p. 14 **spp. n.**, BLÜTHGEN t.c.—*L.* (*Lionotulus*) *alpestris* **var. n.** *bulsanensis* Bozen, **subsp. n.** *iberobarbarus* (with **var. n.** *rufina* Portugal) N. Africa, Spain, Portugal p. 317, BLÜTHGEN Mitt. münch. ent. Ges. **43**.—*L.* (*L.*) *beaumonti* p. 263, (*L.*) *atroscutellatus* p. 264, (*L.*) *inflatipes* p. 265, (*L.*) *timaditensis* p. 266 **spp. n.** Morocco figs., GIORDANI SOIKA Bull. Soc. Sci. nat. Maroc **32**.

Leptopterocheilus **gen. n.** for *Pterochilus linguarius* Saund. p. 262, GIORDANI SOIKA t.c.

Microdynerus timidus **var. n.** *nigra* Germany p. 102, BLÜTHGEN Zool. Anz. **151**.—*M. abdelkader* ♂ p. 11, BLÜTHGEN Mem. Estud. Mus. zool. Univ. Coimbra no. 218.

Nannodynerus chevrieranus **var. n.** *eximia* N. Persia, Portugal p. 5; *lacetanicus* **sp. n.** Spain, Portugal, S.W. France p. 16, BLÜTHGEN t.c.

Odontodynerus ephippium **subsp. n.** *anatoliae* Turkey p. 385 figs., GIORDANI SOIKA Acta ent. Mus. nat. Pragae **27** 1952 no. 394.

Odynerus (*O.*) *planifacies* **sp. n.** Morocco p. 258 fig., GIORDANI SOIKA Bull. Soc. Sci. nat. Maroc **32.**

Pareumenes (*Nortonia*) *intermedius* ♂ p. 238, GIORDANI SOIKA t.c.

Polistes bilineolatus Beq. & Salt, *bahamensis* B. & S., *picturatus* B. & S. subspp. not varr. of *exclamans* p. 7, KROMBEIN Amer. Mus. Novit. no. 1633.—*P. versicolor* Oliv. (=*v.* subsp. *vulgaris* Beq.) p. 119 ; *obscurus* Sauss. (=*o.* var. *simulans* Bert.) p. 127, WILLINK Acta zool. lilloana **10** 1952.

Polybia jurinei Sauss. (=*j.* var. *bonaerense* Brèthes) p. 139, WILLINK t.c.

Pseudepipona (*P.*) *constrictiventris* p. 381, (*Euodynerus*) *breviventris* p. 383 **spp. n.** ; (*E.*) *postica* **subsp. n.** *punctatissima* Turkey p. 382 figs., GIORDANI SOIKA Acta ent. Mus. nat. Pragae **27** 1952 no. 394.—*P.* (*Euodynerus*) *unica* p. 249, (*E.*) *bidentoides* p. 250, (*E.*) *nona* p. 252 **spp. n.**; (*Syneuodynerus*) *fouadi* **subsp. n.** *tensiftensis* p. 255 Morocco, GIORDANI SOIKA Bull. Soc. Sci. nat. Maroc **32.**

Pterocheilus phaleratus subsp. *jeguasicus* ♂ p. 21, BLÜTHGEN Mem. Estud. Mus. zool. Univ. Coimbra no. 218.—*P.* (*Pterochilus*) *linguarius* see *Leptopterocheilus.*

Stelopolybia anceps Beq. a subsp. not var. of *pallipes* Sauss. p. 143, WILLINK Acta zool. lilloana **10** 1952.

Stenodynerus (*S.*) *blepharus* p. 185, (*S.*) *pulvinatus* p. 186, (*S.*) *krombeini* p. 187 **spp. n.** U.S.A., BOHART Proc. biol. Soc. Wash. **66.**

Symmorphus paralleliventris **sp. n.** Morocco p. 241, GIORDANI SOIKA Bull. Soc. Sci. nat. Maroc **32.**

Tachyancistrocerus aereus **sp. n.** Turkey p. 378 ; key to Mediterranean spp. p. 380 figs., GIORDANI SOIKA Acta ent. Mus. nat. Pragae **27** 1952 no. 394.

Tropidodynerus lusitanicus **sp. n.** Portugal p. 19, BLÜTHGEN Mem. Estud. Mus. zool. Univ. Coimbra no. 218.

Chrysidoidea.

CHRYSIDIDAE.

Monograph of Chrysididae of Palestine and neighbouring countries (catalogue p. 25, keys p. 38), BALTHASAR 1951 Acta ent. Mus. nat. Pragae **27** suppl. 2 : 1–317, 33 figs.

Chrysidids of Sagan-Omo Expedition, INVREA Riv. Biol. colon. **12** : 57–69, 5 figs.

Notes on Chrysids in Holland, VAN LITH Ent. Ber., Amst. **14** : 225–227.

Chrysididae of Manchuria, TSUNEKI Mushi **25** : 53–61, 2 figs.

Acanthospintharis **subgen. n.** (type *houškai* sp. n.) see *Spintharis.*

Chrysidea pumila Klug (=*atrata* Kiss) p. 170, BALTHASAR Acta ent. Mus. nat. Pragae **27** 1951 suppl. 2.

Chrysis (*Holochrysis*) *baccha* p. 175, (*H.*) *bilobata* p. 178, (*H.*) *clythia* p. 180, (*H.*) *genuata*, (*H.*) *hoberlandti* p. 188, (*H.*) *judith* p. 192, (*H.*) *kalliope* p. 193, (*H.*) *melpomene* p. 196, (*H.*) *obenbergeri* p. 198, (*H.*) *procne* p. 202, (*H.*) *zimmermanni* p. 212, (*Gonochrysis*) *mařani* p. 217, (*G.*) *salome* p. 220, (*Tetrachrysis*) *amneris* p. 227 (*T.*) *aphrodite* p. 229, (*T.*) *aurelia* p. 233, (*T.*) *dalila* p. 238, (*T.*) *defoveolata* p. 239, (*T.*) *erato* p. 242, (*T.*) *euterpe* p. 243, (*T.*) *frankenbergeri* p. 248, (*T.*) *invreai* p. 256, (*T.*) *klio* p. 257, (*T.*) *libussa*, (*T.*) *lucilla* p. 259, (*T.*) *medea*, (*T.*) *mirifica* p. 264, (*T.*) *praestigiatrix* p. 270, (*T.*) *pseudoincisa* p. 272, (*T.*) *salambo* p. 281, (*T.*) *štěpáneki* p. 291, (*T.*) *táborskýi* p. 292, (*T.*) *terpsichore* p. 295 **spp. n.**; (*Holochrysis*) *cirtana* **ab. n.** *histrionica* p. 180 ; (*H.*) *ignifrons* **var. n.** *arethusa* p. 192 ; (*H.*) *magrettii* **ab. n.** *smaragdicolor* p. 196 ; (*T.*) *apiata* **subsp. n.** *houškiana* p. 232 ; (*Tetrachrysis*) *bihamata* **var. n.** *flagrans* p. 236 ; (*T.*) *defoveolata* **ab. n.** *polyhymnia* p. 240 ; (*T.*) *facialis* **f. n.** *athalia* p. 247 ; (*T.*) *handlirschi* **ab. n.** *astarte* p. 253 ; (*T.*) *praestigiatrix* **ab. n.** *euridice* p. 271 ; (*T.*) *succincta* **subsp. n.** *komíreki* p. 287, **f. n.** *pumilio* p. 288 ; (*Pentachrysis*) *seminigra* **ab. n.** *miriam* p. 303 Palestine ; (*H.*) *hybrida* ab. *dusmetiana* **n. n.** for *dusmeti* Trautm. p. 190 ; (*H.*) *pustulosa* **var.** *orientis*

n. n. for *orientalis* Buyss. p. 204; (*H.*) *varicornis* Spin. (=*separanda* Mocs., *auropicta* M.) p. 210; (*Gonochrysis*) *elegans* Lep. (=*melanura* Buyss. & André, *smaragdula* Trautm.) p. 214; (*G.*) *mochii* Zimm. (=*samariae* Z.) p. 218; (*Monochrysis*) *leachi* Schukard (=*atrata* Trautm.) p. 221; (*Tetrachrysis*) *aestiva* Dahl. (=*sardarica* Radosz., *mixta* Dahl.) p. 225; (*Tetrachrysis*) *analis* Spin. f. *caucasicola* **n. n.** for *caucasica* Mocs. 1912 nec 1889 p. 229; (*Tetrachrysis*) *grohmanni* Dahl. f. *trautmanniella* **n. n.** for *gigantea* Trautm.; *g.* f. *trautmanniana* **n. n.** for *cyanea* Trautm. nec Buyss. p. 249; (*T.*) *incisa* f. *cypricola* **n. n.** for *cypria* Trautm. p. 255; (*Tetrachrysis*) *maculicornis* Klug (=*blanchardi* Lucas, *zobeida* Buyss., *lateralis* B., *annulata* Abeille-Buyss., *jordana* Trautm., *nilotica* Trautm.) p. 260; (*Tetrachrysis*) *palliditarsis* Spin. (=*loetabilis* Buyss.) p. 268; (*T.*) *ramburi* Dahl. ab. *hispanicola* **n. n.** for *hispanica* Trautm. p. 278; (*T.*) *succincta* f. *helléni* **n. n.** for f. *chrysoprasina* Hellén p. 285; *s.* f. *ferghanensis* **n. n.** for *asiatica* Trautm.; *s.* f. *perelegans* **n. n.** for *pulcherrima* Trautm.; *s.* f. *hirsutula* **n. n.** for *hirsuta* Trautm.; *s.* f. *sororia* **n. n.** for *gigantea* Trautm. p. 286; (*T.*) *thalhammeri* Mocs. (=*moricei* Trautm.) p. 295; (*Tetrachrysis*) *xanthocera* f. *alfieriana* **n. n.** for f. *alfierii* Trautm.; *x.* f. *xenia* **n. n.** for *pulchella* Trautm. p. 300; (*Pentachrysis*) *seminigra* Walk. (=*polytima* Buyss.) p. 302 figs., Balthasar t.c.—*C.* (*Tetrachrysis*) *nohirai* Japan p. 31, (*T.*) *fulgidaria* Korea p. 32 **spp. n.** figs., Tsuneki Insecta matsum. **18** 1952.

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Hedychridium hofferi p. 139, *houškai* p. 140, *perpunctatum* p. 143, *šusterai* p. 145, *zimmermanni* p. 146 **spp. n.**; *sculpturatum* **var. n.** *palestinense* p. 145 Palestine figs., Balthasar t.c.—*H. moricei* Buyss. valid sp. not var. of *flavipes* p. 76, Invrea Boll. Soc. ent. ital. **83**.

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Pseudochrysis incrassata **subsp. n.** *ignithorax* Palestine p. 158, Balthasar Acta ent. Mus. nat. Pragae **27** 1951 suppl. 2.

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Formicoidea.

Formicidae.

Formicidae of Réserve du Nimba, Fr. Guinea, Bernard 1952 Mém. Inst. franç. Afr. noire no. 19: 165–270, 15 figs.

Revision of Neotropical Ecitonini, Borgmeier Studia ent., Rio de J. **2**: 1–51, 35 figs.

List of ants of Gt. Smoky Mountains National Park, Tennessee, Cole J. Tenn. Acad. Sci. **28**: 34–35.

Studies of New Mexico ants, I–VI, Cole J. Tenn. Acad. Sci. **28**: 81–82, 82–84, 1 fig. etc.

Formicidae of Apulia and Tremiti Is., Italy, Consani Mem. Biogeogr. adriat. **2**: 25–31.

Formicids of Romagna, Italy, Consani & Zangheri 1952 Mem. Soc. ent. ital. **31**: 38–48.

The ants of California, Cook xiii & 462 pp., illus.

Ponerinae larvae pt. 1, George & Wheeler Amer. Midl. Nat. **48**: 111–144, 5 pls., 2 figs.

Morphological considerations affecting taxonomy of certain genn. of ants, Gregg Proc. ent. Soc. Wash. **55**: 324–330, 2 figs.

Keys to ants of Carinthia, HÖLZEL 1952 Carinthia II **142** : 89–132, 18 figs.

Key to genn. of Pheidolini, KUSNEZOV 1952 Acta zool. lilloana **12** : 9.

List of Bolivian ants, KUSNEZOV Folia univ. **6** : 212–229.

Distribution list of genn. and subgenn. of Argentine ants, KUSNEZOV Zool. Anz. **150** : 17–18.

List of Argentine Dacetini, KUSNEZOV & GOLBACH 1952 Acta zool. lilloana **10** : 423–426.

Ants from vicinity of Kasimierz, Poland, PISARSKI Fragm. faun. Mus. zool. polon. **6** : 465–500, 1 fig.

List of some Formicids from Paraná, Brazil, VERNALHA 1952 Arq. Biol. Tecn. **7** : 43–51.

Larvae of Ponerinae, WHEELER, G. C. & J. 1952 Amer. Midl. Nat. **48** : 604–672, 6 pls.

Larvae of Formicinae, WHEELER G. C. & J. Ann. ent. Soc. Amer. **46** : 126–171, 175–217, 6 pls. 2 figs.

Larvae of Melissotarsini, Metaponini, Myrmicariini, Cardiocondylini, WHEELER G. C. & J. J. Wash. Acad. Sci. **43** : 185–189, 20 figs.

Larvae of Pheidolini, WHEELER G. C. & J. Proc. ent. Soc. Washington **55** : 49–84, 3 pls.

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Aenictus villiersi **sp. n.** Fr. Guinea p. 221 figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Aneleus silvestrii ♂ p. 239, BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Anisopheidole froggatti Forel (= *Monomorium lippulum* Wheel.) p. 7, BROWN Breviora no. 18.

Anochetus Mayr (= *Myrmapateles* Wheel.); *filicornis* Wheel. from *M.* p. 2, BROWN t.c.—*A. silvaticus*, *lamottei* p. 212, *gnomulus* p. 214 **spp. n.** Fr. Guinea figs., BERNARD Mém. Inst. franç. Afr. noire **no. 19** 1952.

Aphaenogaster (*Allomyrma*) *huachucana* **subsp. n.** *crinimera* New Mexico p. 82 fig., COLE J. Tenn. Acad. Sci. **28.**—*A.* (s. str.) *semipolita* Nyl. (= *s.* var. *ionia* Em.) p. 26, CONSANI Mem. Biogeogr. adriat. **2.**

Aphantolepis see *Technomyrmex*; *quadricolor* see *T.*

Asphinctopone Santschi (= *Lepidopone* Bern.); *lamottei* Bern. from *L.* p. 2, BROWN Breviora no. 18.

Biconomyrma **subgen. n.** see *Conomyrma*.

Blepharidatta Wheel. in Ochetomyrmicini p. 4, BROWN Breviora no. 18.

Bothroponera silvestrii **subsp. n.** *nimba*; *lamottei* **sp. n.** Fr. Guinea p. 188 figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Brachymyrmex depilis Em. (= *d.* subsp. *flavescens* Grundm.) p. 266, COLE Ent. News **64.**

Camponotus revision of Argentine spp. (key p. 192) pp. 183–252; *guayapa*, *yala* p. 194, *aguilerai* p. 196 **spp. n.** Argentina; *punctulatus* variation p. 245 figs., KUSNEZOV Acta zool. lilloana **12** 1952.—*C.* (*Myrmoturba*) *bruchi* Forel (= *distinguendus* Altiplano, *bolivianus* Stitz) p. 225, KUSNEZOV Folia univ. **6.**—*C.* (*Colobopsis*) *cerberulus* Em. status discussed p. 148; (*C.*) *papago* **sp. n.** Arizona p. 153 figs., CREIGHTON Psyche **59.**—*C.* (*Myrmobrachys*) *striatus* F. Sm. (= *Dolichoderus granulatus* Perg.) p. 211, SMITH Proc. ent. Soc. Wash. **55.**

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Cerapachys villiersi **sp. n.** Fr. Guinea p. 215, BERNARD t.c.

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Descolemyrma **gen. n.** (Attini), *ogloblini* **sp. n.** Argentina p. 460 figs., KUSNEZOV Acta zool. lilloana **11** 1951.

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Myrmica revision of Czech spp. pp. 233–278 (keys p. 264) ; (*M.*) *rubra* **var. n.** *mutata* p. 242 ; (*M.*) *scabrinodis* **var. n.** *scabrinodo-sabuleti* ; (*M.*) *balcanica* (with **var. n.** *scabrinodoides* p. 255) (also Yugoslavia, Bulgaria) p. 253, *M.*) *slovaca* (also Bulgaria) p. 259 **spp. n.** Czechoslovakia ; (*M.*) *pilosiscapus* Bondr. a sp. not var. of *scabrinodes* p. 258 figs., SADIL Acta ent. Mus. nat. Pragae **27** 1952 no. 392.—*M. striolagaster* **sp. n.** New Mexico p. 81 ; *lobicornis fracticornis* Em. (=*lobicornis lobifrons* Perg.) p. 242, COLE J. Tenn. Acad. Sci. **28.**

Myrmicaria eumenoides opaciventris larva p. 187 fig., WHEELER G. C. & J., J. Wash. Acad. Sci. **43.**

Neivamyrmex diversinodis Borgm. a good sp. not syn. of *bohlsi*; *porrectognathus* Borgm. a subsp. of *pilosus*; *hetschkoi* Mayr (=*taunayi* Borgm.); *adnepos* Wheel. (=*marginatus* Borgm.) p. 5; *spinolae* Westw. (=*punctaticeps* Em., *latiscapus* subsp. *hospes* Em. p. 7, *fiebrigi* For. p. 9); *imbellis* Em. a good sp. not var. of *klugii*; *jerrmanni* For. (=*luederwaldti* Em. p. 7, *halidaii* subsp. *filicornis* Sant. p. 14); *commutatus* Em. (=*fiebrigi* var. *columbicus* For.); *planidorsum* Em. (=*paraensis* For.); *pseudops* For. (=*p.* subsp. *garbei* For.); *romandii* Shuck. (=*melsheimeri* subsp. *desertsi* For.); *sulcatus* Mayr (=*richteri* var. *modificatus* For.); *tristis* For. a good sp. not subsp. of *spoliator* p. 9; *cristatus* André (=*legionis* subsp. *crenulatus* Mann); *leonardi* Wheel. (=*peninsularis* Mann) p. 10; *pertii* subsp. *fonscolombii* Westw. (=*nitens* Mayr, *strobeli* Mayr) p. 11; *halidaii* Shuck. (=*frontalis* Men. p. 11, *gravenhorstii* Westw. p. 18); *hartigii* Westw. (=*apicifer* Sant.); *esenbeckii* Westw. (=*fimbriatus* Sant. & varr. *interruptus* Sant., *terrificus* Sant.); *pilosus mexicanus* F. Sm. (=*Labidus spininodis* subsp. *militarium* Sant.); *latiscapus* var. *guyanensis* Sant. (=*l.* var. *nocuus* Sant.); *lemoulti* Sant. a race of *halidaii* p. 14; *pertii* Shuck. (=*illigeri* Shuck.) p. 15; *mexicanus* F. Sm. a race of *pilosus* p. 17; *fonscolombii* Westw. a subsp. or race of *pertii*; *emersoni* Wheel. a good sp. not subsp. of *angustinodis*; *arizonensis* Wheel. a subsp. of *swainsonii*; *andrei* Em. (=*oslari* Wheel.) p. 19; *carinifrons* p. 24, *detectus* p. 25, *clavifemur* p. 30, *micans* p. 32, *vicinus* p. 35, *tenuis*, *perplexus* p. 36, *piraticus* p. 37, *cratensis* p. 38 Brazil, *longiscapus* (also Guatemala) p. 27, *gibbatus* (also Panama, Br. Guiana) p. 45, *compressinodis* p. 50 Costa Rica, *scutellaris* p. 28, *foveolatus* p. 41, *pullus* p. 42, *postcarinatus* p. 43 Panama, *planidens* Ecuador p. 31, *genalis* p. 34, *gradualis* p. 46 Bolivia, *macropterus* p. 40, *agilis* p. 44, *rugulosus* p. 49 Mexico, *fallax* Texas p. 48 **spp. n.**; *klugii* **subsp. n.** *distans* Costa Rica, Panama, Bolivia p. 32 figs., BORGMEIER Studia ent., Rio de J. **2.**

Nimbamyrma **gen. n.** (Myrmicidae) p. 240, *villiersi* **sp. n.** Fr. Guinea p. 241 figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Nomamyrmex hartigii Westw. (=*h.* subsp. *hansi* For.) p. 9, BORGMEIER Studia ent., Rio de J. **2.**

Novomessor cockerelli André (=*sonorae* Perg.) p. 115, COOK Ants Calif.

Odontomachus assiniensis **subsp. n.** *flavescens* Fr. Guinea p. 215 figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Oligomyrmex stenopterus **sp. n.** Argentina p. 184 figs., KUSNEZOV Acta zool. lilloana **10** 1952.

Orectognathini characters p. 85, BROWN Mem. Qd Mus. **13.**

Orectognathus revision of Indo-Australian spp. (key p. 104) pp. 84–104; *clarki* p. 94, *satan* p. 102 **spp. n.** Australia figs., BROWN t.c.

Paratrechina (*Nylanderia*) *arlesi* **sp. n.** p. 257; (*N.*) *weissi* **subsp. n.** *nimba* p. 258 Fr. Guinea figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Pheidole revision of Argentine spp. (key p. 61) pp. 22–88; (*Elasmopheidole*) *subaberrans* p. 71, *lilloi* p. 74, *descolei* p. 76, *minutissima* p. 78, *gavrilovi* p. 80, *carapunco* p. 82, *ogloblini* p. 85, *haywardi* p. 88 **spp. n.** Argentina, KUSNEZOV Acta zool. lilloana **12** 1952.—*P.* (*Ceratopheidole*) *grundmanni* **sp. n.** Utah p. 144 fig., SMITH J. N.Y. ent. Soc. **61.**—*P. pilifera* **subsp. n.** *anfracta* New Mexico p. 278, COLE J. Tenn. Acad. Sci. **27** 1952.—*P. senex* Gregg (=*pilifera anfracta* Cole); *sitarches soritis* Wh. (=*sitarches campestris* Wh.) p. 298, COLE op. cit. **28.**—*P.* (*Ceratopheidole*) *clydei* soldier p. 1 figs., GREGG Amer. Mus. Novit. no. 1637.—*P. speculifera* p. 223, *megacephala* subsp. *melancholica* p. 225 ♀♀; *nimba* p. 224, *minuscula* p. 226, *nigritella* p. 227 **spp. n.** Fr. Guinea figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Phyracaces occipitalis **sp. n.** Fr. Guinea p. 216, BERNARD t.c.

Platythyrea monodi **sp. n.** Fr. Guinea p. 185 figs., BERNARD t.c.

Podomyrma elongata Forel (=*parva* Crawl.); *grossestriata* Forel a sp. not subsp. of *e.* p. [3], BROWN N. Qd Nat. **21** no. 104.

Pogonomyrmex lists of American spp. p. 246; key to workers p. 254; *abdominalis* Sants. valid sp. not subsp. of *naegelii* p. 260; *silvestrii* Em. (=*brevibarbis* subsp. *longiceps* Sants.) a subsp. of *brevibarbis* p. 264; *longibarbis* **subsp. n.** *andinus* p. 276; *meridionalis* (with **subsp. n.** *leonis* p. 278) 277 **sp. n.** Argentina; *carbonarius* Mayr valid sp. not var. of *rastratus* M. p. 272; *micans* Forel distinct sp. not subsp. of *bruchi* p. 284 figs., KUSNEZOV Acta zool. lilloana **11** 1951.—*P. spadix* p. 98, *nitratus* p. 99 **spp. n.** U.S.A. figs., COOK Ants Calif. —*P. marcusi* larva p. 46 figs., MARCUS Folia univ. **6**.—*P. occidentalis* Cress. (=*salinus* Olsen) p. 132, SMITH Bull. Brooklyn ent. Soc. **48**.

Ponera key to workers of W. Africa p. 197; *breviceps* p. 202, *petiolata*, *ursoïdea* p. 203, *sinuosa*, *lamottei* p. 204, *mandibularis*, (*Hypoponera*) *occidentalis* p. 205, (*H.*) *intermedia*, (*H.*) *villiersi* p. 206 **spp. n.** Fr. Guinea figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.—*P. ruginoda* see *Myrmecia pilosula*.

Ponerini (=subtribe Centromyrmicini) p. 9, BROWN Breviora no. 11.

Prionopelta Mayr (=*Renea* Donis.) p. 11; *majuscula* Em. (=*poultoni* D., *R. testacea* D.) p. 12, BROWN t.c.

Pristomyrmex Mayr (=*Hylidris* Weber) p. 9, BROWN t.c.

Probolomyrmex palauensis **sp. n.** Palau Is. p. 128 figs., SMITH J. N.Y. ent. Soc. **61**.

Promyrmecia see *Myrmecia*; *nobilis* see *Myrmecia*; *laevinodis* see *M. mandibularis*; *ruginodis* see *M. rugosa*; *wilsoni*, *shepherdi*, *goudiei*, *marmorata* see *M. varians*; *scabra*, *maloni* see *M. harderi*.

Psalidomyrmex clavicornis **sp. n.** Fr. Guinea p. 209 figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Pseudomyrmex apache **sp. n.** S.W. U.S.A. p. 134 figs., CREIGHTON Psyche **59**.

Renea see *Prionopelta*; *testacea* see *P. majuscula*.

Rhopalomastix rothneyi larva p. 185 fig., WHEELER G. C. & J., J. Wash. Acad. Sci. **43**.

Rhoptromyrmex opacus **subsp. n.** *monodi* Fr. Guinea p. 251 figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Rhytidophora Mayr (=*Chalcoponera* Em.) p. 2, BROWN Breviora no. 11.

Romblonella characters p. 75; *grandinodis* re-description p. 76; *yapensis* Yap I. p. 78, *vitiensis* Fiji p. 79, *townesi* Tinian I. p. 80 **spp. n.**, SMITH Proc. Hawaii. ent. Soc. **15**.—*R. palauensis* **sp. n.** Palau Is. p. 164, SMITH J. N.Y. ent. Soc. **61**.

Smithistruma (*S.*) *habei* **sp. n.** Japan p. 89, AZUMA Hyogo Biology **2** 1950 [not seen].

Solenomyrma see *Gauromyrmex*.

Spinomyrma **subgen. n.** see *Dorymyrmex*.

Strumigenys mandibularis F. Sm. (=*batesi* Forel) p. 53; *godmani* Forel (=*ferox* Weber) p. 55; *planeti* **sp. n.** Bolivia, Brazil, Trinidad p. 57; *biolleyi* Forel (=*tridens* Weber, *luctuosa* Men.) p. 101; *smithii* Forel (=*s.* var. *inaequalis* Em.) p. 104; *hemidisca* **sp. n.** Venezuela p. 107; *prospiciens* Em. a sp. not subsp. of *s.* p. 108, BROWN J. N.Y. ent Soc. **61**.—*S. clasmospongia* Brazil p. 2, *producta* Bolivia p. 3, *mixta* Guatemala p. 4 **spp. n.**, BROWN Psyche **60**.—*S. petiolata* **sp. n.** Fr. Guinea p. 254, BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Technomyrmex Mayr (=*Aphantolepis* Wheel.); *quadricolor* Wheel. from *A.* p. 5, BROWN Breviora no. 18.

Teratanes elegans **sp. n.** Fr. Guinea p. 243 figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Tetramorium humerosum (with **subsp. n.** *muscicola*) p. 246, *lamottei* p. 247 **spp. n.** Fr. Guinea figs., BERNARD t.c.

Tetraponera nasuta **sp. n.** Fr. Guinea p. 222, BERNARD t.c.

Trachymyrmex smithi neomexicanus ♂, ♀ p. 300, COLE J. Tenn. Acad. Sci. **28.**

Trapeziopelta tasmaniensis Wheel. (=*diadela* Clark) from *Myopias* p. 51, BROWN Psyche **60.**

Triglyphothrix nion **sp. n.** Fr. Guinea p. 248 figs., BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Typhloteras see *Centromyrmex*; *hamulatus* see *C.*

Wasmannia of Argentina (key); *williamsoni* **sp. n.** Argentina p. 181 figs., KUSNEZOV Acta zool. lilloana **10** 1952.

Xenomyrmex stolli **subsp. n.** *nodosus* Mexico p. 2 fig., CREIGHTON Amer. Mus. Novit. no. 1634.

Xyphomyrmex weitzeckeri **subsp. n.** *guineensis* Fr. Guinea p. 251, BERNARD Mém. Inst. franç. Afr. noire no. 19 1952.

Proctotrupoidea (Serphoidea).

Proctotrupoids of Fr. W. Africa, RISBEC Bull. Inst. franç. Afr. noire **15**: 549–576, 5 figs.

Proctotrupidae of Madagascar, RISBEC Mém. Inst. sci. Madagascar (E) **3**: 313–348, 34 figs.

SCELIONIDAE (including PLATYGASTERIDAE).

Acolus ater, hilaris **spp. n.** Hungary pp. 293, 481, SZELÉNYI in SZÉKESSY Bátorliget élövilága.

Anteromorpha africana **sp. n.** Ivory Coast p. 572 figs., RISBEC Bull. Inst. franç. Afr. noire **15.**

Apegus maxillosus Risb. from *Elgonia* (DIAPRIIDAE) p. 575, RISBEC t.c.

Brachynostemma sylvatica **sp. n.** Madagascar p. 344 figs., RISBEC Mém. Inst. sci. Madagascar (E) **3.**

Ceratoteleia galliphila **sp. n.** Ivory Coast p. 564 fig., RISBEC Bull. Inst. franç. Afr. noire **15.**

Dichoteleas apperti **sp. n.** Senegal p. 569 fig., RISBEC t.c.

Mandraka **gen. n.**, *pauliani* **sp. n.** Madagascar p. 343 figs., RISBEC Mém. Inst. sci. Madagascar (E) **3.**

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Platygaster perineti p. 330, *pauliani* p. 334, *philippiae* p. 338, *dombeyae* p. 339 **spp. n.** Madagascar, RISBEC t.c.

Procacus spinosus **sp. n.** Ivory Coast p. 575 fig., RISBEC Bull. Inst. franç. Afr. noire **15.**

Sactogaster madagascariensis **sp. n.** Madagascar p. 340 figs., RISBEC Mém. Inst. sci. Madagascar (E) **3.**

Scelio oviphagus **sp. n.** India pp. 203–213 figs., MUKERJI Indian J. Ent. **14.**

Trichacis pulchricornis **sp. n.** Hungary pp. 294, 482, SZELÉNYI in SZÉKESSY Bátorliget élövilága.

CERAPHRONIDAE (CALLICERATIDAE).

Ceranogmus **gen. n.**, *testaceus* **sp. n.** Ivory Coast p. 560 fig., RISBEC Bull. Inst. franç. Afr. noire **15.**

Ceraphron irokoi p. 555, *ivorensis* p. 557 **spp. n.** Ivory Coast figs., RISBEC t.c.—*C. vernoniae* (with **var. n.** *nuxiae* p. 321) p. 319, *soavinae* p. 322, *ankaratrae* p. 323 **spp. n.** Madagascar, RISBEC Mém. Inst. sci. Madagascar (E) **3.**

Lygocerus chilocori **sp. n.** Japan p. 95 figs., ISHII Oyo-Dobuts.-Zasshi **16** 1951.

Neolygocerus **gen. n.** p. 93, *koyamae* **sp. n.** Japan p. 94 figs., ISHII t.c.

DIAPRIIDAE (including BELYTIDAE).

Aneuropria aegyptiaca ♂ p. 550 fig., RISBEC Bull. Inst. franç. Afr. noire **15.**

Ashmeadopria see *Ceratopria.*

Ceratopria Ashm. (=*Ashmeadopria* Kieff., *Trichopria* Ashm., *Planopria* Kieff., *Neodiapria* Kieff.) pp. 453–455; *alexandrina* **sp. n.** Egypt p. 455, PRIESNER Bull. Soc. Fouad ler Ent. **37.**

Diapria transiens **sp. n.** Austria p. 456, PRIESNER t.c.

Elgonia maxillosus see *Apegus* (SCELIONIDAE).

Hemilexis nitens **sp. n.** Hungary pp. 292, 480, SZELÉNYI in SZÉKESSY Bátorliget élövilága.

Ledouxopria **gen. n.** p. 551, *africana* **sp. n.** Ivory Coast p. 552 fig., RISBEC Bull. Inst. franç. Afr. noire **15**.

Monelata clavigera p. 448, *pallipes* Austria, *aegyptiaca* Egypt p. 451 **spp. n.**; key to Palaearctic spp. p. 452, PRIESNER Bull. Soc. Fouad ler Ent. **37**.

Neodiapria see *Ceratopria*.

Paramesius madagascariensis **sp. n.** Madagascar p. 313, RISBEC Mém. Inst. sci. Madagascar (E) **3**.

Phaenopria major p. 441, *minor*, *simulatrix* (also Egypt) p. 443, *aegyptorum* p. 444, *revelata* p. 445, *atomaria* p. 446 Egypt **spp. n.**; key to Palaearctic spp. p. 447, PRIESNER Bull. Soc. Fouad ler Ent. **37**.

Planopria see *Ceratopria*.

Trichopria see *Ceratopria*.

Viennopria **gen. n.**, *priesneri* **sp. n.** Sweden p. 105 fig., JANSSON Ent. Tidskr. **74**.

Chalcidoidea.

Chalcidoidea of Prague National Museum Expedition to Turkey, pt. I, BOUČEK 1952 Acta ent. Mus. nat. Pragae **27** no. 383 : 47–57, 14 figs.

Morphology of abdomen of Chalcidoidea, DOMENICHINI Boll. Zool. agr. Bachic. **19** : 183–298, 1 pl., 27 figs.

Additions to knowledge of Chalcidoidea of Hungary and neighbouring regions, ERDŐS Folia ent. hung. (N.S.) **6** : 165–184, 2 figs.

Chalcidoidea of the USSR (keys p. 75), NIKOL'SKAYA 1952 Opred. Faune SSSR **44** : 1–575, 592 figs.

Chalcidoids of Fr. W. Africa, RISBEC Bull. Inst. franç. Afr. noire **15** : 577–607, 7 figs.

AGAONIDAE.

Catalogue of World Agaoninae, GRANDI 1952 Boll. Ist. Ent. Univ. Bologna **19** : 69–96.

Blastophaga (*Valentinella*) *kraussi* p. 47, (*Julianella*) *baschierii* p. 50 **spp. n.** Mexico figs., GRANDI Boll. Ist. Ent. Univ. Bologna **19** 1952.—*B. constabularis* p. 267, *arnottiana* p. 270 **spp. n.** India figs., JOSEPH Agra Univ. J. Res. (Sci.) **2**.

Ceratosolen mysorensis **sp. n.** India p. 277 figs., JOSEPH t.c.—*C. nugatorius* **sp. n.** Kuala Lumpur p. 55 figs., GRANDI Boll. Ist. Ent. Univ. Bologna **19** 1952.

Indothymus **gen. n.** p. 73, *infectorius* (type) p. 74, *crenulatus* p. 77 **spp. n.** India figs., JOSEPH Agra Univ. J. Res. (Sci.) **2**.

Lipothymus glomeratus **sp. n.** India p. 127 figs., JOSEPH Indian J. Ent. **15**.

Neosycoecus **gen. n.** p. 62, *indicus* (type) p. 63, *longipalpus* p. 69 **spp. n.** India figs., JOSEPH Agra Univ. J. Res. (Sci.) **2**.

Philocaenus **gen. n.** p. 38, *barbatus* **sp. n.** Senegal p. 40 figs., GRANDI Boll. Ist. Ent. Univ. Bologna **19** 1952.

Pleistodontes regalis **sp. n.** Australia p. 61 figs., GRANDI t.c.

Seres armipes re-description p. 34 figs., GRANDI t.c.

Sycophaga brevitarsus further description p. 132 figs., JOSEPH Indian J. Ent. **15**.—*S. valentinae* **sp. n.** Senegal p. 32 figs., GRANDI Boll. Ist. Ent. Univ. Bologna **19** 1952.

Sycophagella **gen. n.**, *agraensis* **sp. n.** India p. 53 figs., JOSEPH Agra Univ. J. Res. (Sci.) **2**.

Tetrapus mexicanus **sp. n.** Mexico p. 58 figs., GRANDI Boll. Ist. Ent. Univ. Bologna **19** 1952.

TORYMIDAE (CALLIMOMIDAE).

Ditropinotus flavus, *obscurus* **spp. n.** Centr. Asia p. 140, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Glyphomerus carinatus **sp. n.** Centr. Asia p. 142, NIKOL'SKAYA t.c.

Megastigmus juniperi Mts. of Uzbekistan & Kazakhstan, *mali* W. Siberia, *cotoneastri* Tadzhikistan **spp. n.** p. 106 figs., NIKOL'SKAYA t.c.

Neomegastigmus amraeus **sp. n.** India p. 241 figs., CHANDY KURIAN Agra Univ. J. Res. (Sci.) **2.**

Plesiostigma ledouxi **sp. n.** Ivory Coast p. 600 fig., RISBEC Bull. Inst. franç. Afr. noire **15.**

Podagrion ivorensis p. 597, *variabilis* p. 599 **spp. n.** Ivory Coast figs., RISBEC t.c.

Syntomaspis bangalorensis **sp. n.** India p. 1 figs., MANI & CHANDY KURIAN Indian J. Ent. **15.**

Torymus albomaculatus see *Hockeria bifasciata* (CHALCIDIDAE).

CHALCIDIDAE.

Haltichellinae of France, STEFFAN Cah. Nat. (N.F.) **8** : 7–12, 33–36.

Anachalcis suppl. to description p. 204 ; *major* **sp. n.** Asia Minor p. 205, BOUČEK Acta ent. Mus. nat. Pragae **27** 1952 no. 388.

Anacryptus muzafferi p. 2, *sontakayi, raoi* p. 4, *shaffii* p. 5 **spp. n.** India figs., MANI & CHANDY KURIAN Indian J. Ent. **15.**

Anoplochalcidia guineensis see *Lasiochalcidia.*

Antrocephalus Kby. (= *Dilla* Strand, *Dillisca* Ghesq.) p. 9, STEFFAN Cah. Nat. (N.F.) **8.**—*A. goliath* Centr. Asia, S. Kazakhstan, Afghanistan, Persia p. 96, *vincens* Turkmenia, *mansues* S. European Russia, *gracilis* N. Persia p. 98 **spp. n.** fig., NIKOL'SKAYA Opred. Faune SSSR **44** 1952.—*A. hofferi* see *Eucepsis.*

Aphasganophora **gen. n.** for *Phasganophora gallica* Sichel (type) p. 92 ; *ensifera* **sp. n.** Transcaucasia, Centr. Asia p. 94 fig., NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Belaspidia masii **sp. n.** Centr. Asia p. 96 fig., NIKOL'SKAYA t.c.

Brachymeria pilosa p. 87, *laevis* p. 89 Turkmenia, *similis* S. European Russia, *tristis* (also W. Siberia) p. 90, *picea* p. 91 Bashkiriya **spp. n.**, NIKOL'SKAYA t.c.

Chalcis rufitarsis see *Invreia.*

Chalcitella torymoïdes **sp. n.** Ivory Coast p. 591 fig., RISBEC Bull. Inst. franç. Afr. noire **15.**

Dilla see *Antrocephalus.*

Dillisca see *Antrocephalus.*

Dirhinus gussakovskii Centr. Asia, *vlasovi* Turkmenia **spp. n.** p. 86, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Eucepsis **gen. n.** for *Stomatoceras magrettii* Kby. pp. 8, 12 ; *hofferi* Bčk. from *Antrocephalus* p. 12, STEFFAN Cah. Nat. (N.F.) **8.**

Euchalcis key to French spp. p. 8 ; *unicolor* Luc. (= *nuda* Bčk.) p. 9, STEFFAN t.c.

Hockeria Lap. (= *Stomatoceras* Kby.) p. 10 ; *bifasciata* Wlk. (= *Torymus albomaculatus* Luc.) p. 11, STEFFAN t.c.—*H. karatasensis* **sp. n.** Anatolia p. 48 figs., BOUČEK Acta ent. Mus. nat. Pragae **27** 1952 no. 383.

Invreia Masi (= *Parinvreia* Steff.) ; key to French spp. ; *rufitarsis* Ill. from *Chalcis* p. 35, STEFFAN Cah. Nat. (N.F.) **8.**—*I. nitida* **sp. n.** Anatolia p. 50 figs., BOUČEK Acta ent. Mus. nat. Pragae **27** 1952 no. 383.

Lasiochalcidia guineensis Steff. (= *indescripta* Bčk.) from *Anoplochalcidia* p. 203, BOUČEK Acta ent. Mus. nat. Pragae **27** 1952 no. 388.—*L.* (*Anoplochalcidia*) *guineensis* Steff. (= *indescripta* Bčk.) p. 34, STEFFAN Cah. Nat. (N.F.) **8.**

Lepidochalcis **gen. n.** p. 91, *tomentosa* **sp. n.** N. Persia p. 92, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Parinvreia see *Invreia.*

Phasganophora gallica see *Aphasganophora.*

Steffanisa **gen. n.**, *rubrocincta* **sp. n.** Oran p. 201 figs., BOUČEK Acta ent. Mus. nat. Pragae **27** 1952 no. 388.

Stomatoceras micula Transcaucasia, *medianum, metula* (also Turkmenia) Tadzhikistan, *exlex* W. Kazakhstan **spp. n.** p. 95, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.—See *Hockeria* ; *magrettii* see *Eucepsis.*

Urochalcis **gen. n.**, *ninae* (type) Turkmenia, *maura* N. Africa **spp. n.** p. 91, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

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Anarchirileya **gen. n.** p. 54, *femorata* **sp. n.** Anatolia p. 56 figs., BOUČEK Acta ent. Mus. nat. Pragae **27** 1952 no. 383.

Bruchophagus mutabilis **sp. n.** W. Europe p. 174, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Calorileya nigra **sp. n.** Brazil p. 244 figs., GOMES Bol. Soc. brasil. Agron. **6** 1943.

Eurytoma tephritidis p. 33, *swezeyi* p. 34, *latrodecti* p. 35 **spp. n.** Hawaii, FULLAWAY Proc. Hawaii. ent. Soc. **15**.—*E. caraganae* **sp. n.** European Russia, W. Siberia p. 187, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.—*E. tropicana* **sp. n.** Ivory Coast p. 593 fig., RISBEC Bull. Inst. franç. Afr. noire **15**.

Prodecatoma pongamiae **sp. n.** India p. 7 figs., MANI & CHANDY KURIAN Indian J. Ent. **15**.

Systole albipennis Wlk. (=*geniculata* March. nec Först., *foeniculi* Ott.); *geniculata* Först. not in *S.* p. 8; *albipennis*, *conspicua* distinguishing characters p. 9 figs., BOUČEK Zool. ent. Listy **1** 1952.

PERILAMPIDAE.

Elatoides **gen. n.**, *niger* **sp. n.** Maritime Province p. 200, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Elatus shurik **sp. n.** European Russia p. 200, NIKOL'SKAYA t.c.

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Philomides Haliday (=*Fissicrania* Risbec) p. 606, RISBEC Bull. Inst. franç. Afr. noire **15**.

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Eucharis turca Asia Minor p. 204, *scylla* p. 205, *pusilla* Tadzhikistan, *gussakovskii* S. European Russia, W. Kazakhstan p. 207 **spp. n.**, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.—*E. anatolica* **sp. n.** Anatolia p. 52 figs., BOUČEK Acta ent. Mus. nat. Pragae **27** 1952 no. 383.

Saccharissa striolata **sp. n.** Ivory Coast p. 603 fig., RISBEC Bull. Inst. franç. Afr. noire **15**.

Stilbula vitripennis ♂ p. 54 figs., BOUČEK Acta ent. Mus. nat. Pragae **27** 1952 no. 383.—*S. tadzhika* Tadzhikistan, *montana* Pamir **spp. n.** p. 208, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

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Oodera monstrum S. European Russia, *bestia* Crimea, Centr. Volga region **spp. n.** p. 474, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Polymoria cavifrons S. European Russia p. 476, *fucus* Tadzhikistan, *puella* E. Turkmenia p. 477 **spp. n.**, NIKOL'SKAYA t.c.

ENCYRTIDAE (including APHELINIDAE, THYSANIDAE).

Classification of Thysanidae, KERRICH Bull. ent. Res. **44** : 806–808.

Key to subfamm. and genn. of Palaearctic Encyrtidae, FERRIÈRE Mitt. schweiz. ent. Ges. **26** : 1–45, 91 figs.

Aphelinid biologies with implications for taxonomy, FLANDERS Ann. ent. Soc. Amer. **46** : 84–94.

Ablerus perspeciosus see *Azotus*.

Achrysopophagus dactylopii p. 798, *seini* p. 799 characters figs., KERRICH Bull. ent. Res. **44**.

Adelencyrtus aulacaspidis Brèthes (=*Habrolepis mayri* Rusch. & Fulm.) p. 116, FERRIÈRE Rev. Path. vég. **32**.

Aenasius theobromae **sp. n.** Trinidad p. 796 ; *t., cariocus* ♀♀ p. 797 figs., KERRICH Bull. ent. Res. **44**.

Anagyrus pseudococci ♀ p. 120, ♂ p. 145 morphology ; re-description p. 171 figs., DOMENICHINI Boll. Zool. agr. Bachic. **18** 1952.—*A. bohemani* West. (=*querciola* Mercet, *mayri* Ruschka) p. 54 ; *securicornis* **sp. n.** Hungary p. 56 figs., DOMENICHINI op. cit. **19**.

Anthemus aspidioti **sp. n.** Centr. Asia p. 338, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Aphycoides merceti **sp. n.** England p. 4 fig., FERRIÈRE Proc. R. ent. Soc. Lond. (B) **22**.

Apoanagyrus trinidadensis **sp. n.** Trinidad p. 792 figs., KERRICH Bull. ent. Res. **44**.

Azotus perspeciosus Gir. from *Ablerus* p. 74, DE SANTIS Rev. Fac. Agron. **29**.

Blastothrix cuprina Transcaucasia p. 374, *clara* S. European Russia p. 375 **spp. n.**, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Bothriothorax igneus Centr. Asia, *cyaneus* Yakutiya, *proximus* E. Kazakhstan **spp. n.** p. 441, NIKOL'SKAYA t.c.

Centrodora key p. 78 ; *tomaspidis* ♂ p. 79 ; *bella* **sp. n.** Argentina p. 80 figs., DE SANTIS Rev. Fac. Agron. **29**. —*C. hexatricha* p. 180, *ochrura* p. 183 **spp. n.** Hungary figs., ERDÖS & NOVICKY in ERDÖS Folia ent. hung. (N.S.) **6**.

Comperiella unifasciata, bifasciata ♂♂ compared p. 181 figs., TACHIKAWA Trans. Shikoku ent. Soc. **3**.

Copidosoma annulata **sp. n.** Caucasus, W. Kazakhstan, W. Siberia p. 421, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Echthroplexiella irinae **sp. n.** W. Siberia p. 361, NIKOL'SKAYA t.c.

Encyrtus hemipterus **sp. n.** Transcaucasia p. 404, NIKOL'SKAYA t.c.

Ericydnus aeneus Centr. Asia, *bicolor* S. European Russia **spp. n.** p. 357, NIKOL'SKAYA t.c.—*E. ivorensis* **sp. n.** Ivory Coast p. 578 fig., RISBEC Bull. Inst. franç. Afr. noire **15**.

Eucomys incerta **sp. n.** Transcaucasia p. 436, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Gahaniella tertia **sp. n.** Trinidad p. 800 figs., KERRICH Bull. ent. Res. **44**.

Gyranusa fulva **sp. n.** Tadzhikistan p. 348, NIKOL'SKAYA Opred. Faune SSSR **44** 1952.

Habrolepis guineensis **sp. n.** Fr. Guinea p. 116 figs., FERRIÈRE Rev. Path. vég. **32**.—*H. mayri* see *Adelencyrtus aulacaspidis*.

Hunterellus theilerae **sp. n.** S.W. Africa p. 61 figs., FIEDLER Onderstepoort J. vet. Res. **26**.

Leptomastix dactylopii p. 789, *bahiensis* characters ; *dispar* **sp. n.** Trinidad p. 790 ; key to Tropical American spp. p. 791 figs., KERRICH Bull. ent. Res. **44**.

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Neodiscodes kirkpatricki Trinidad p. 793, *lepelleyi* Ceylon p. 795 **spp. n.**; *martinii* characters p. 794; key to spp. p. 795 figs., KERRICH Bull. ent. Res. **44.**

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Xanthoencyrtus Ashm. (=*Pholidoceras* Merc.), characters p. 1; *semiapterus* ♀ p. 2 fig., FERRIÈRE Proc. R. ent. Soc. Lond. (B) **22.**

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Tomicobia seitneri ♀ p. 223 fig., ERDÖS Acta biol., Budapest **4.**

ELASMIDAE.

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Crataepus marbis Wlk. (from *Tetrastichus*) (=*aquisgranensis* Först., *fletcherii* Ashm.), redescription p. 74 figs., GRADWELL Ent. mon. Mag. **89.**

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Proacrias Ihering & *coffeae* Ihering further descriptions pp. 211–214 figs., GOMES Bol. Soc. brasil. Agron. **6** 1943.

Syntomosphyrum pauliani **sp. n.** Madagascar p. 155 fig., RISBEC Nat. malgache **4** 1952.

Tetrastichus sexmaculatus **sp. n.** India p. 117 figs., CHANDY KURIAN Agra Univ. J. Res. (Sci.) **2.**—*T. platanellus* ♂ p. 403 figs., FERRIÈRE Boll. Ist. Ent. Univ. Bologna **19.**—*T. baoli* **n. n.** for *euplectrae* Risbec nec *euplectri* Gahan p. 577, RISBEC Bull. Inst. franç. Afr. noire **15.**—*T. marbis* see *Crataepus.*

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Eucoela (*Psichacra*) *tanebae* **sp. n.** [?Japan] p. 521 fig., ISHII Zool. Mag., Tokyo **51** 1939.

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Phaenoglyphis bangalorensis **sp. n.** India p. 122 figs., CHANDY KURIAN Agra Univ. J. Res. (Sci.) **2**.

Plagiotrochus abdominalis **sp. n.** Argentina p. 28 figs., ESQUIVEL & DE SANTIS Rev. Fac. Agron. **29**.

Ichneumonoidea.

Some Ichneumonoidea from New Caledonia and Lifu Island, Loyalty Islands, CHEESMAN Ann. Mag. nat. Hist. (12) **6**: 625–636, 12 figs.

ICHNEUMONIDAE.

Some Pimplinae from Africa, BENOIT Bull. Ann. Soc. ent. Belg. **89**: 278–281.

List of W. African Ichneumonids, BENOIT Bull. Inst. franç. Afr. noire **15**: 543–548, 2 figs.

List of some Polish Ophioninae, GŁOWACKI Fragm. faun. Mus. zool. polon. **6**: 569–584.

Ichneumonidae of Styria (concl.), HEINRICH Bonn. zool. Beitr. **4**: 147–185, 4 figs.

Revision of some Strobl types and spp. from his collection, HEINRICH Z. wien. ent. Ges. **38**: 206–211.

Some Ichneumonidae of Belgium and neighbouring countries, LECLERCQ Bull. Inst. Sci. nat. Belg. **29** no. 38: 1–11.

Supplement to Ichneumonidae of Poland, NOSKIEWICZ & CHUDOBA 1952 Bull. ent. Pologne **21**: 30–60, 3 pls.

Additions and corrections to Ichneumoninae in Kloet & Hincks' "Check list of British insects" 1945, PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**: 103–176, 41 figs.

Ichneumonids of N. China from the Japanese expedition, 1942, UCHIDA 1952 Mushi **24**: 39–58.

Ichneumonidae of Mt. Ishizuchi & Omogo Valley, Japan, UCHIDA Trans. Shikoku ent. Soc. **3**: 126–131.

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Amersibia longipetiolaris **sp. n.** Japan p. 23, UCHIDA Insecta matsum. **18** 1952.

Anomalon yasumatsui **sp. n.** N. China p. 55, UCHIDA Mushi **24** 1952.

Aoplus (*Stenichneumon*) *propinquus* **sp. n.** Japan p. 18, UCHIDA Insecta matsum. **18** 1952.

Apaeleticus bellicosus Wesm. (=*inclytus* Wesm.) p. 131, PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Aphanoroptrum abdominale Grav. (=*Polyblastus longiceps* Strobl) p. 210, HEINRICH Z. wien. ent. Ges. **38**.

Atropha luteipes **sp. n.** S. Rhodesia p. 281, BENOIT Bull. Ann. Soc. ent. Belg. **89.**—*A. bredoi* **sp. n.** Belg. Congo p. 159, BENOIT Rev. Zool. Bot. afr. **47.**

Barichneumon gemellus Grav. (= *carri* Haberm.) p. 118; *maculicauda* **n. n.** for *Melanichneumon perscrutator* Wesm. nec Thunb.; to include all British spp. listed under *Melanichneumon* Thoms. p. 136 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**—*B. magus, semirufus* see *Cratichneumon.*

Barytarbes flavoscutellatus ♀ p. 177 figs., HEINRICH Bonn. zool. Beitr. **4.** —*B. virgultorum* Grav. (=*Notopygus* (*Erigoloea* [sic])*flavoscutellatus* Strobl) p. 209, HEINRICH Z. wien. ent. Ges. **38.**—*B. himertoides* **sp. n.** Holland p. 33, TEUNISSEN Tijdschr. Ent. **96.**

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Campoplex korta **sp. n.** New Caledonia p. 636 figs., CHEESMAN Ann. Mag. nat. Hist. (12) **6.**

Casinaria colacae **sp. n.** Formosa p. 431, SONAN Zool. Mag., Tokyo **51** 1939.

Celor villiersi **sp. n.** S. Aïr p. 545 fig., BENOIT Bull. Inst. franç. Afr. noire **15.**

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Coelichneumon nigerrimus Steph. (=*derasus* Wesm.) p. 108; *eximius* Steph. (=*coeruleus* Cress.) p. 110; *orbitator* Thunb. (=*Ichneumon melanopyrrhus* Steph.) p. 111; *subviolaceiventris* Pic from *Ichneumon*; *purpurissatus* **n. n.** for *nigrator* F. nec Muell. p. 138 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**—*C. calcatorius* Thunb. from *Stenichneumon* p. 148, HEINRICH J. Wash. Acad. Sci. **43.**

Conoblasta chinensis p. 50, *yasumatsui* p. 51 **spp. n.** N. China, UCHIDA Mushi **24** 1952.

Cratichneumon albifrons Steph. (= *Ichneumon gravenhorstii* Boyer de Fons.) p. 109; *fabricator maculifrons* Steph. (=*Ichneumon pyrrhopus* Steph.) p. 111; *magus* Wesm. (=*Phaeogenes nitidus* Bridgm. p. 116) from *Barichneumon* p. 136; *varipes* Grav. (=*fallax* Hab.) p. 118; *semirufus* Grav. from *Barichneumon* p. 137 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**—*C. parvulus* Kriechb. (?=*Ichneumon angusteannulatus* Strobl) p. 208; *albiscuta* Thoms. (=*I. leucomelanoides* Strobl) p. 210, HEINRICH Z. wien. ent. Ges. **38.**—*C. acerbus* Cress. reduced to subsp. of *nigritarius* F. p. 149, HEINRICH J. Wash. Acad. Sci. **43.**

Cratocryptus microstriatellus **sp. n.** Japan p. 21, UCHIDA Insecta matsum. **18** 1952.

Cremastus chopardi **sp. n.** Aïr p. 547 fig., BENOIT Bull. Inst. franç. Afr. noire **15.**—*C. gigas* **sp. n.** Austria p. 184 figs., HEINRICH Bonn. zool. Beitr. **4.**

Cryptopimpla modesta var. *nigriventris* see *Taschenbergia.*

Cryptus tiphiipuppis see *Rossitera.*

Ctenichneumon sputator see *Patroclus.*

Cteniscus rufofasciatus Strobl from *Polyblastus* p. 211, HEINRICH Z. wien. ent. Ges. **38.**

Ctenochira (*Scopiorus*) *annulatus* Holmgr. from *Polyblastus* p. 14; (*S.*) *pastoralis* var. *ruficoxis* Rom. (=*nitidiventris* var. *ruficoxis* Rom.) p. 15, TEUNISSEN Tijdschr. Ent. **96.**

Cyclolabus dubiosus **sp. n.** England p. 156 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**

Cyphanza laophila **sp. n.** Austria p. 161 figs., HEINRICH Bonn. zool. Beitr. **4.**

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Diadromus troglodytes Grav. (=*Ichneumon abdominator* Steph.) p. 112; *candidatus* Grav. (=*guttulatus* Grav.) p. 132 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Dialges intensicolor **sp. n.** Austria p. 167 figs., HEINRICH Bonn. zool. Beitr. **4**.

Dicaelotus pictus Schmied., *punctiventris* Thoms. from *Deloglyptus* p. 144; *fitchi* Br. Isles p. 158, *suspectus* England, Sweden p. 160 **spp. n.** figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Dinotomus spinosus see *Hoplismenus bidentatus*.

Diplazon deletus ♀ redescription p. 48; *obscuripes* Holmgr. (=*Promethes luctuosus* Schmied.); *rhenanus* Hab. (=*tricolor* Stelf.) p. 49, TEUNISSEN Tijdschr. Ent. **96**.

Dolomerista [sic] *laevis* ♂ p. 17, AERTS Nachr. naturw. Mus. Aschaffenburg no. 40.

Encardia rufantennata p. 150, *burgeoni* p. 152 **spp. n.** Belg. Congo figs., BENOIT Rev. Zool. Bot. afr. **47**.

Endasys (*E.*) *brevioides* **sp. n.** Japan p. 22, UCHIDA Insecta matsum. **18** 1952.

Enicospilus nocturnus, samoana p. 633, *salomonis* p. 635 characters figs., CHEESMAN Ann. Mag. nat. Hist. (12) **6**.

Ephialtes aciculatus ♂ pp. 43, 58; *messor* Grav. (=*heteropus* Thoms.) pp. 48, 58, NOSKIEWICZ & CHUDOBA Bull. ent. Pologne **21** 1952.—*E. nanus* see *Afrephialtes*.

Epitomus proximus **sp. n.** England, Ireland, Sweden p. 161 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Epiurus sulcatus **sp. n.** Belg. Congo p. 154, BENOIT Rev. Zool. Bot. afr. **47**.

Erigorgus alpigenus **sp. n.** Germany, Austria p. 181 figs., HEINRICH Bonn. zool. Beitr. **4**.

Eriplatys ardeicollis Wesm. (=*Nematomicrus elliotti* Morley) p. 117 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Eudiaborus preliminary study of European spp. (provisional key to ♀♀ p. 158) pp. 151–159; *lituratorius* Thoms. nec L. re-description p. 155; *pedatorius* Panz. (=*filipalpis* Thoms.) from *Bassus* p. 158 figs., KERRICH Opusc. ent. **18**.

Eurylabus bimaculatus see *Rhadinodonta flaviger*.

Euryproctus regenerator F. a var. of *nemoralis* p. 23, TEUNISSEN Tijdschr. Ent. **96**.

Exochus unidentatus **sp. n.** N. China p. 52, UCHIDA Mushi **24** 1952.

Gabunia revision of African spp. pp. 93–98, characters of groups p. 93; *flavitarsis* Kriechb. (=*Nadia formosa* Tosq.) p. 94; *rugosa* Szépl. a var. of *ruficoxis* K. p. 95, BENOIT Ann. Soc. zool. Belg. **82** 1951.

Genarches angularis **sp. n.** Japan p. 23, UCHIDA Insecta matsum. **18** 1952.

Glypta parasitica p. 249, *schoutedeni* p. 250, *bredoi, hispida* p. 251, *suzannae* p. 252, *temporalis, semicarinata* p. 253 **spp. n.** Belg. Congo, BENOIT Rev. Zool. Bot. afr. **47**.—*G. summimontis* **sp. n.** Austria p. 149 figs., HEINRICH Bonn. zool. Beitr. **4**.

Glyptorhaestus in subtribe Perilissina; *boschmai* **sp. n.** Holland p. 18 fig., TEUNISSEN Tijdschr. Ent. **96**.

Gonioglyphus continentalis p. 145, *globiceps* p. 146 **spp. n.** Belg. Congo, BENOIT Rev. Zool. Bot. afr. **47**.

Gotra unicolor Turn. re-description p. 629 figs., CHEESMAN Ann. Mag. nat. Hist. (12) **6**.

Grypocentrus anomalus see *Phaestus*.

Habrocryptoides **gen. n.** for *Habrocryptus shikokuensis* Uchida (type); *teranishii* **sp. n.** Japan p. 19, UCHIDA Insecta matsum. **18** 1952.

Habrocryptus shikokuensis see *Habrocryptoides*.

Hadrodactylus nigricoxa Thoms. (?=*thomsoni* Schmied.) p. 166, HEINRICH Bonn. zool. Beitr. **4**.—*H. semirufus* Holmgr. (=*pubescens* Ulbr.) ♂ p. 22, TEUNISSEN Tijdschr. Ent. **96**.

Hemiteles variolosus ♀ p. 13, AERTS Nachr. naturw. Mus. Aschaffenburg no. 40.

Herpestomus nasutus Wesm. (= *furunculus* Wesm., *intermedius* Wesm.) p. 132; *wesmaeli* **sp. n.** England, Ireland p. 157 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**—*H. distinctus* see *Phaeogenes*.

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Holcopimpla pusilla **sp. n.** Belg. Congo p. 83, BENOIT Rev. Zool. Bot. afr. **48.**

Hoplismenus bidentatus Gmel. (= *Dinotomus spinosus* Morley p. 116, *Mesostenus maurus* Marsh. p. 117) figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**

Hoplocryptus nigripes **subsp. n.** *chinensis* N. China p. 47; *sugiharai* ♂ p. 48, UCHIDA Mushi **24** 1952.

Hybophorellus injucundus Wesm. (= *Amblyteles duplicator* p. 118) from *A.* p. 130 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**

Hymenobosmina oditesi, eariasi **spp. n.** Formosa p. 430, SONAN Zool. Mag., Tokyo **51** 1939.

Hypamblys salicis [? Holland] p. 26, *variabilis* p. 27, *dejongi* p. 28 Holland **spp. n.**, TEUNISSEN Tijdschr. Ent. **96.**

Ichneumon molitorius L., *crassifemur* Thoms. distinct spp. p. 107; *formosus* Grav. (= *microcephalus* Steph.) p. 110; *minutorius* Desv. (= *captorius* Thoms.); *inquinatus* Wesm. distinct sp. not syn. of *crassorius* p. 113; *walkeri* Wesm. (= *rubedinis* Desv.) p. 115; *septentrionalis atrifemur* **n. n.** for *scelestus* Perk. nec Cress. p. 140; *quartanus* p. 145, *caproni* (also Germany, France) p. 146, *aquilonius* p. 148 **spp. n.** Britain figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**—*I. schansensis* **sp. n.** p. 40; *luteipes* **subsp. n.** *yasumatsui* N. China; *tsunekii* Uch. reduced to var. of *gracilicornis* p. 41, UCHIDA Mushi **24** 1952.—*I. cinctitarsis* Prov. reduced to subsp. of *deliratorius* p. 149, HEINRICH J. Wash. Acad. Sci. **43.**—*I. obsessor* Wesm. (= *brunneosparsus* Strobl) p. 209, HEINRICH Z. wien. ent. Ges. **38.**—*I. promissorius* identity discussed p. 16, PARROTT N.Z. Ent. **1** no. 3.—*I. variegatorius* var. *annulatus* see *Stenichneumon*; *albocingulatus* see *Pseudamblyteles oratorius*; *bicristatus* see *P. castanopygus*; *xanthocnemis* see *P. polyxanthus*; *angusteannulatus* see *Cratichneumon parvulus*; *leucomelanoides* see *C. albiscuta*; *rufator* see *Phaeogenes semivulpinus*; *rufipes* see *Polytribax curvus*; *binotatus* see *Stenichneumon lineator*; *subviolaceiventris* see *Coelichneumon*; *melanopyrrhus* see *C. orbitator*; *ancipterus, dubitatus* see *Amblyteles*; *gravenhorstii* see *Cratichneumon albifrons*; *pyrrhopus* see *C. fabricator maculifrons*; *cincticornis* see *Stenichneumon*; *abdominator* see *Diadromus troglodytes*.

Ignambia **gen. n.**, *janiseli* **sp. n.** New Caledonia p. 630 figs., CHEESMAN Ann. Mag. nat. Hist. (12) **6.**

Ipoctoninus inversus p. 23, *nigriventris* p. 24 **spp. n.** Holland, TEUNISSEN Tijdschr. Ent. **96.**

Itoplectis françoisi **sp. n.** Belg. Congo p. 148, BENOIT Rev. Zool. Bot. afr. **47.**

Kentotryphon longecaudatus further description; in Tryphoninae p. 210, HEINRICH Z. wien. ent. Ges. **38.**

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Lathrolestes (*Thyphonopsis* [sic]) *ensator* **var. n.** *minimus* Holland p. 17; *blancoburgensis* ♀ p. 18, TEUNISSEN Tijdschr. Ent. **96.**

Leptacoenites frauenfeldi Tschek. (=*tscheki* Strobl) p. 148, HEINRICH Bonn. zool. Beitr. **4.**

Limerodops belangeri Cress. (from *Amblyteles*) reduced to subsp. of *fossorius* L. p. 150, HEINRICH J. Wash. Acad. Sci. **43.**

Lissonota jugorum Strobl from *Mesoleius* p. 209, HEINRICH Z. wien. ent. Ges. **38.**

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Loxoneurus thuringiacus characters differentiating from *Glyptorhaestus punctatus* p. 19, TEUNISSEN Tijdschr. Ent. **96.**

Melanichneumon (*Lissosculpta*) *marginoscutellaris* **sp. n.** N. China p. 42, UCHIDA Mushi **24** 1952.—*M. tenuiantennalis* **sp. n.** Japan p. 130, UCHIDA Trans. Shikoku ent. Soc. **3.**—*M. perscrutator* see *Barichneumon maculicauda*; British spp. see *B.*

Mesoleius debitor var. *nigriventris* Hab. (=var. *nigriventris* Hell.); *testaceus* list of varr. p. 31, **var. n.** *maculatus* Holland; *t.* var. *sectator* Thunb. (=*Alexeter inconspicuus* Schm.); *niger* **var. n.** *rufiventris* p. 32; (*Prospudaea*) *compactor* **var. n.** *rufomedia* p. 33 Holland; key to spp. of subgen. *Scopesus*; (*S.*) *bicolor* Grav. a var. of *frontator* p. 34; *rufonotatus* Holmgr. (=*thomsoni* Haberm. p. 35) **var. n.** *fuscus* Holland; *ulbrichti* Germany p. 36, *lindemansi* no locality, *aglaia* p. 44, *euphrosyne* p. 45, *laricis* p. 46, *thalia* p. 47 Holland **spp. n.**; *frontator* Thunb. (=*rufolabris* Zett.); *depressus* ♂ p. 37; *breviformis* corrections to description; *hypoleucus* further description p. 38, **var. n.** *rufotibialis* Holland p. 39; *roepkei* further description p. 40; *monticola* Holmgr. (=*Syndipnus monticola* Thoms.) p. 41; *nivalis* ♂; *contractus* Holmgr. (=*Synodites contractus* Thoms.) p. 42; *variegatus* **var. n.** *infuscatus*; *elegans* **var. n.** *rubens*; *gracilipes* **var. n.** *alboscutum* Holland p. 43 figs., TEUNISSEN Tijdschr. Ent. **96.**—*M. stryriacus* [sic] p. 170, *referendus* p. 171, *zonifer* p. 173, *mixticolor* p. 174 **spp. n.** Austria figs., HEINRICH Bonn. zool. Beitr. **4.**—*M. albicoxis* Strobl characters p. 206, generic position discussed p. 207; *compressiventris* generic position discussed p. 209, HEINRICH Z. wien. ent. Ges. **38.**—*M. pseudoliturata* see *Neostroblia*; *jugorum* see *Lissonota*; *laevissimus* see *Alexeter rapinator.*

Mesoleptidea cingulata, stälii distinguishing characters p. 22, TEUNISSEN Tijdschr. Ent. **96.**

Mesoleptus iyoensis **sp. n.** Japan p. 130, UCHIDA Trans. Shikoku ent. Soc. **3.**

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Metopius key to subgenn. p. 161, to Palaearctic spp. p. 162, GYÖRFI Ann. hist.-nat. Mus. hung. (N.S.) **4.**

Mevesia guttata **sp. n.** England p. 162 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**

Microcryptus leucocerus **sp. n.** Germany p. 10, AERTS Nachr. naturw. Mus. Aschaffenburg no. 40.—*M. funereoides* **sp. n.** Japan p. 20, UCHIDA Insecta matsum. **18** 1952.

Monoblastus palustris see *Rhorus neustriae*; *nigrinus* see *R. substitutor.*

Nadia formosa see *Gabunia flavitarsis.*

Nematomicrus elliotti see *Eriplatys ardeicollis.*

Neostroblia **gen. n.** for *Mesoleius pseudoliturata* Strobl p. 211, HEINRICH Z. wien. ent. Ges. **38.**

Netelia samoana further characters p. 631; *shopar* **sp. n.** Lifu I., Loyalty Is. p. 632 figs., CHEESMAN Ann. Mag. nat. Hist. (12) **6.**—*N.* (*Parabates*) *ishiharai* **sp. n.** Japan p. 131, UCHIDA Trans. Shikoku ent. Soc. **3.**

Notopygus alpigenus Strobl generic position and synonymy discussed p. 207, HEINRICH Z. wien. ent. Ges. **38.**—*N. bicarinatus* **sp. n.** Holland p. 21, TEUNISSEN Tijdschr. Ent. **96.**—*N.* (*Erigloea*) *flavoscutellatus* see *Barytarbes virgultorum.*

Nototrachys foliator p. 468, *chinensis* p. 469 re-descriptions figs., VIKTOROV Zool. Zhurn. **32**.

Odontomerus pinitorum [sic] further description p. 19, AERTS Nachr. naturw. Mus. Aschaffenburg no. 40.

Ophion summimontis **sp. n.** Austria p. 183 figs., HEINRICH Bonn. zool. Beitr. **4**.

Oxypimpla **subgen. n.** (type *turionellae* L.) see *Pimpla*.

Paracollyria Cam. (=*Seydelia* Fahr.) p. 98; *macrodactylus* Tosq. (=*S. curiosa* Fahr.); *fenestratus* Kr. p. 99, *dapsilis* Tosq. p. 100 from *Acaenitus*, BENOIT Ann. Soc. zool. Belg. **82** 1951.

Paraethecerus **gen. n.** p. 164 (Ichneumoninae) *elongatus* **sp. n.** England, Germany p. 165 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Patroclus sputator F. from *Ctenichneumon* p. 129, PERKINS t.c.

Perilissus spilonotus Steph. (=*thuringiacus* Schmied., *subcinctus* Holmgr.); *tripunctor* Thunb. (=*singularis* Voll.); *lutescens* characters p. 16; *maritimus* **sp. n.** Holland p. 17, TEUNISSEN Tijdschr. Ent. **96**.—*P. punctatissimus* see *Trematopygus*.

Phaeogenes semivulpinus Grav. (=*Ichneumon rufator* Steph.) p. 112; *distinctus* Bridgm. from *Herpestomus* pp. 115, 137; *invisor* Thunb. (=*homochlorus* Wesm.) p. 133; *fulvitarsis* Wesm. (=*ruficoxa* Thoms.) p. 134; *foveolatus* (also Ireland, Sweden, Finland) p. 165, (*Proscus*) *coriaceus* p. 167 **spp. n.** Britain, Germany figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.—*P. nitidus* see *Cratichneumon magus*; *similis* see *Thyraeella collaris*.

Phaestus anomalus Brischke (=*heterocerus* Thoms.) from *Grypocentrus* p. 29, TEUNISSEN Tijdschr. Ent. **96**.

Phobetellus leptocerus **var. n.** *basalis* Holland p. 23, TEUNISSEN t.c.

Phobetus albocoxatus characters, generic position discussed p. 207, HEINRICH Z. wien. ent. Ges. **38**.

Pimpla (*Oxypimpla* **subgen. n.**) pp. 42, 56; *turionellae* L. (=*aterrima* Grav.) pp. 43, 57 figs., NOSKIEWICZ & CHUDOBA Bull. ent. Pologne **21** 1952.—*P.* (*P.*) *vumbana* p. 278, (*Coccigomimus*) *arnoldi* (also Belg. Congo) p. 280 **spp. n.** S. Rhodesia, BENOIT Bull. Ann. Soc. ent. Belg. **89**.—*P.* (*Coccigomimus*) *properata* **subsp. n.** *kivuensis* p. 155; (*P.*) *spectabilis* **subsp. n.** *urundiensis* p. 156 Belg. Congo, BENOIT Rev. Zool. Bot. afr. **47**.

Platylabus obator Desv. distinct sp. not syn. of *pedatorius* F. p. 113; *transversus* Bridg. (=*lativentris* Thoms.) p. 115; *stolidus* England, Belgium p. 153, *odiosus* Br. Isles, Germany p. 154 **spp. n.** figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Plectocryptus concavopropodeonus **sp. n.** Japan p. 21, UCHIDA Insecta matsum. **18** 1952.—*P. curvus* see *Polytribax*.

Polyblastus strobilator **var.** *cothurnatus* Grav. (=var. *intermedius* Ulbr.); *tuberculatus* **sp. n.** Holland p. 13; *s.* var. *albocinctus* Grav. (=var. *ruficoxa* Hell.); *s.* var. *nigrifemur* Ulbr. (=var. *alpina* Haberm.); *binotatus* ♀ p. 14, TEUNISSEN Tijdschr. Ent. **96**.—*P. longiceps* see *Aphanoroptrum abdominale*; *albotrochanteratus* see *Spudaea compactor*; *rufofasciatus* see *Cteniscus*; *annulatus* see *Ctenochira*.

Polytribax curvus Schr. (=*Ichneumon rufipes* Grav.) from *Plectocryptus* p. 108 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Promethes luctuosus see *Diplazon obscuripes*.

Protarchus vepretorum Grav. (=*sorbi* Ratzb.) p. 31, TEUNISSEN Tijdschr. Ent. **96**.

Protichneumon key to spp. of Belgium and neighbouring countries p. 6, LECLERCQ Bull. Inst. Sci. nat. Belg. **29** no. 38.

Pseudamblyteles oratorius F. (=*Ichneumon albocingulatus* Strobl) p. 207; *castanopygus* Steph. (=*I. bicristatus* Strobl) p. 208; *polyxanthus* Kriechb. (=*I. xanthocnemis* Strobl) p. 211, HEINRICH Z. wien. ent. Ges. **38**.

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Rhyssalus fuscipes Wesm. (=*Ichnoxylobius [illegible]* Strobl) p. 208, HEINRICH Z. wien. ent. Ges. **38.**

Rhyssus pronotalis **sp. n.** Holland: *fulvomalis* further description p. 20, TEUNISSEN Tijdschr. Ent. **96.**

Rheridermus nigricollis Wesm. (=*Heterischnus rufipes* Wesm.) p. 131 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**

Rhorus (*Cyphanza*) *neustriae* Schr. (=*Monoblastus palustris* Holmgr.); **var. n.** *[illegible]* Sweden: *[illegible]* Thunb. (=*M. [illegible]*) Hab. p. 15, TEUNISSEN Tijdschr. Ent. **96.**

Rhysemboeus corrections to description p. 18, TEUNISSEN l.c.

Rossitera **gen. n.** for *Cryptus tipulivoraus* Vach. (re-description p. 627) p. 626, CHEESMAN Ann. Mag. nat. Hist. (12) **6.**

Sagis [illegible] ♂: *nigrinotus* further description p. 30, TEUNISSEN Tijdschr. Ent. **96.**

Scolobates auriculatus **var. n.** *nigridiminutus* Japan p. 24, UCHIDA Insecta matsum. **18** 1952.—*S.* (*Scolobatus* [sic]) *auriculatus* **var. n.** *nigrifacies* Holland p. 16, TEUNISSEN Tijdschr. Ent. **96.**

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Sphenophaga diplopteroeum Koorn. a var. of *rhizinpaus* p. 30: systematic position p. 31, TEUNISSEN Tijdschr. Ent. **96.**

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Spudaea compactor Thunb. (=*Polyblastus albotrochanteratus* Strobl) p. 207, HEINRICH Z. wien. ent. Ges. **38.**

Stenichneumon annulatus Strobl from *Ichneumon*, not var. of *I. variegatorius* Holmgr. p. 208, HEINRICH l.c.—*S. cincticornis* Cress. (from *Ichneumon*) reduced to subsp. of *culpator* Schrank p. 149, HEINRICH J. Wash. Acad. Sci. **43.**—*S. lineator* F. (=*Ichneumon binotatus* Steph.) p. 109 figs., PERKINS Bull. Brit. Mus. Nat. Hist.) Ent. **3.**—*S. [illegible]* see *Spilichneumon*.

Stiphrosomus styriacus **sp. n.** Austria p. 162 figs., HEINRICH Bonn. zool. Beitr. **4.**

Stiphrotyphus cryptomaster **ff. n.** *annulicornis*, *nigriventris* N. & Centr. Europe p. 11, AERTS Nachr. naturw. Mus. Aschaffenburg no. 40.

Symboethus key to German spp. p. 153; *hinzi* Germany p. 155, *duplicatus* (with **var. n.** *discedens* p. 158) Austria p. 157 **spp. n.** figs., HEINRICH Bonn. zool. Beitr. **4.**

Syndipnus lindemansi **sp. n.** Holland p. 25, TEUNISSEN Tijdschr. Ent. **96.**—*S. monticola* see *Mesoleius monticola*.

Synodites contractus see *Mesoleius contractus*.

Synomelix albipes **var. n.** *facialis* Holland p. 22, TEUNISSEN Tijdschr. Ent. **96.**

Syrphoctonus punctiventris ♂ p. 179 figs., HEINRICH Bonn. zool. Beitr. **4.**

Syzeuctus samhonis ♀ p. 22, UCHIDA Insecta matsum. **18** 1952.

Taschenbergia nigriventris Strobl (from *Cryptopimpla*) a subsp. of *modesta* p. 210, HEINRICH Z. wien. ent. Ges. **38.**

Theronia femoralis **sp. n.** Belg. Congo p. 153, BENOIT Rev. Zool. Bot. afr. **47.**

Thyraella collaris Grav. (=*Phaeogenes sumilis* Bridgm.) p. 116 figs., PERKINS Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**

Thyrateles **gen. n.** for *Amblyteles camelinus* Wesm. p. 149 figs., PERKINS t.c.

Trematopygus laevithorax further description p. 209; *punctatissimus* Strobl from *Perilissus* p. 210, HEINRICH Z. wien ent. Ges. **38.**

Weisia bredoi **sp. n.** Belg. Congo p. 147, BENOIT Rev. Zool. Bot. afr. **47.**

Xaniopelma altitudinis **sp. n.** Austria p. 165 figs., HEINRICH Bonn. zool. Beitr. **4.**

Xanthocryptus albopictus identity discussed p. 15, PARROTT N.Z. Ent. **1** no. 3.

Xanthophenax ruber p. 83, *xanthopteros* p. 84, *antennatus* p. 85, *pygmaeus*, *bredoi* p. 86, *apicalis*, *infumatus* p. 87, *maynéi* p. 88 **spp. n.** Belg. Congo, BENOIT Rev. Zool. Bot. afr. **48.**

Xanthopimpla curvicaudata **sp. n.** Belg. Congo p. 82 figs., BENOIT t.c.

Xylonomus sapporensis **var. n.** *nigritibiae* Japan p. 22, UCHIDA Insecta matsum. **18** 1952.

Zatypota prima **sp. n.** Belg. Congo p. 137, BENOIT Rev. Zool. Bot. afr. **47.**

Zemiophorus scutulatus **var. n.** *rufus* Germany p. 23, TEUNISSEN Tijdschr. Ent. **96.**

BRACONIDAE.

Agathis festiva **sp. n.** China p. 149, MUESEBECK Proc. ent. Soc. Wash. **55.**

Apanteles grouping by larval characters of some spp. pp. 327–332 figs., SHORT Bull. ent. Res. **44.**—*A. epijarbi* **sp. n.** India p. 23 figs., RAO Indian J. Ent. **15.**—*A. harrisinae* **sp. n.** Arizona p. 150, MUESEBECK Proc. ent. Soc. Wash. **55.**—*A. dipika* see *Microplitis.*

Aspidocolpus Wesm. valid gen. not subgen. of *Helcon* p. 29, WATANABE Insecta matsum. **18** 1952.

Baryproctus apti **sp. n.** Hungary pp. 292, 479, GYÖRFI in SZÉKESSY Bátorliget élővilága.

Bracon lissogaster **sp. n.** Montana p.150, MUESEBECK Proc. ent. Soc. Wash. **55.**—*B. opacus* **n. n.** for *concolor* Thoms. nec Wlk. p. 95, STELFOX Ent. mon. Mag. **89.**—*B. chinensis* Szépl. (=*albolineatus* Cam.) p. 41, WATANABE Insecta matsum. **18** 1952.

Chelonus (*Chelonella*) *starki* Centr. & S.W. Russia, E. Kazakhstan p. 1175, *smirnovi* Stalingrad Province p. 1176 **spp. n.** fig., TELENGA Zool. Zhurn. **32.**

Doryctes nixoni **sp. n.** Japan p. 25 fig., WATANABE Insecta matsum. **18** 1952.

Helcon (*Helconidea*) *planidorsum* **sp. n.** Japan p. 27 fig., WATANABE t.c.

Microctonus emmae **sp. n.** Italy p. 181 figs., DELUCCHI Redia **37** 1952.

Microplitis dipika Bhat. from *Apanteles* p. 27, RAO Indian J. Ent. **15.**

Opius leveri **sp. n.** Malaya p. 309; *longicaudatus* **varr. n.** *chocki* Philippines p. 310, *novocaledonicus* New Caledonia p. 311, *malaiaensis* Malaya p. 312, *taiensis* Siam p. 313, FULLAWAY Proc. ent. Soc. Wash. **55.**

Perilitus deceptor all stages, morphology pp. 163–171 figs., DOMENICHINI Boll. Zool. agr. Bachic. **19.**

Rogas heterostigma **sp. n.** Ireland p. 146, STELFOX Ent. mon. Mag. **89.**

Spathius fuscipennis all stages p. 95 figs., ISHII Oyo-Dobuts.-Zasshi **18.**

Syntretoriana **gen. n.** p. 164, *davidi* **sp. n.** Australia p. 165 fig., PARROTT Proc. R. ent. Soc. Lond. (B) **22.**

EVANIIDAE.

Revision of Hyptiogastrinae (excl. forms with a single discoidal cell), CROSSKEY Trans. R. ent. Soc. Lond. **104**: 347–384, 25 figs.

Afrevania **gen. n.**, *leroyi* **sp. n.** Belg. Congo p. 259 figs., BENOIT Rev. Zool. Bot. afr. **48.**

Aulacofoenus see *Hyptiogaster.*

Aulacostethus key to Australian spp.; *variegatus* Shuck. (=*pulchricornis* Kieff.); *flavoguttatus* Westw. (=*flavopictus* Kieff.) p. 759; *angularis* p. 761, *cordiformis* p. 763 **spp. n.** New South Wales figs., CROSSKEY Ann. Mag. nat. Hist. (12) **6**.

Aulacus minutus **sp. n.** Queensland p. 764 figs., CROSSKEY t.c

Brachygaster notauliferus p. 257, *globiceps* p. 258 **spp. n.** Belg. Congo figs., BENOIT Rev. Zool. Bot. afr. **48**.

Carinafoenus **gen. n.** for *Hyptiogaster flavosignata* Kieff., *H. humeralis* Schlett., *H. arenicola* Turn., *H. rufa* Westw. (type), *H. crassiceps* Schlett. p. 358 figs., CROSSKEY Trans. R. ent. Soc. Lond. **104**.

Crassifoenus **gen. n.** for *Hyptiogaster macronyx* Schlett. (type), *H. grossitarsis* Kieff. p. 355 figs., CROSSKEY t.c.

Gasteruption patellatum, trianguliferum see *Hyptiogaster*.

Hemifoenus see *Hyptiogaster*.

Hyptiogaster Kieff. (=*Hemifoenus* Kieff. p. 351, *Aulacofoenus* Kieff. p. 352); *szépligetii* Kieff. from *Aulacofoenus* p. 352; *patellata* Westw. (=*microchela* Kieff.) from *Gasteruption* p. 353; key to spp. p. 363; *australis* Westw. (=*Gasteruption trianguliferum* Kieff.) p. 370; *ferruginea* p. 368, *microcephala* p. 379 Australia, *interrupta* Tasmania p. 375 **spp. n.** figs., CROSSKEY Trans. R. ent. Soc. Lond. **104**.—*H. flavosignata, humeralis, arenicola, rufa, crassiceps* see *Carinafoenus*; *macronyx, grossitarsis* see *Crassifoenus*.

STEPHANIDAE.

Foenatopus miréi **sp. n.** Tibesti p. 39, BENOIT Bull. Ann. Soc. ent. Belg. **89**.

Tenthredinoidea, etc.

Tenthredinoidea of Brittany, BARBOTIN Bull. Soc. Sci. Bretagne **26**: 129–139.

Synopsis of Chinese Cephoidea, MAA 1949 Chinese J. Zool. **3**: 17–29, 9 figs.

Synopsis of Chinese Megalodontoidea, MAA 1949 Chinese J. Zool. **3**: 30–42, 6 figs.

Symphyta of Vuohiniemi, S. Finland, NUORTEVA, P. & M. Ann. ent. fenn. **19**: 63–71, 2 figs.

Argidae of Parc nat. Albert, Belg. Congo, PASTEELS Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79: 95–99, 5 figs.

Tenthredinoidea of Parc nat. Upemba, Belg. Congo, PASTEELS Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 17: 117–131, 18 figs.

Prodromes of Tenthredinoidea of Equatorial Africa, I, Argidae, PASTEELS Mém. Soc. ent. Belg. **26**: 1–128, 269 figs.

Acantholyda intermedia **sp. n.** Chekiang p. 34 figs., MAA Chinese J. Zool. **3** 1949.

Allocimbex **gen. n.**, *obscura* **sp. n.** no locality p. 235, ZIRNGIEBL Mitt. münch. ent. Ges. **43**.

Amasis obscura **var. n.** *adusta* Spain p. 235, ZIRNGIEBL t.c.

Anoplonyx destructor larval instars p. 78 figs., CROOKE Bull. ent. Res. **44**.

Arge Schr. (=*Triarge* Fors.) p. 5; *marlieri* p. 15, *laevicornis* p. 20, *nigrescens* p. 30, *bipartita* p. 34, *prima* p. 47, *secunda, tertia* p. 51, *quarta, quinta* p. 53, *sixta, septima* p. 54, *decima, leleupi* p. 56, *ghesquièrei* p. 63, *serrata* p. 64, *nitida* p. 111 Belg. Congo, *cafra* p. 17, *orientalis* p. 21 E. Africa, *zambeza* (also Nyasaland), *dubitata* p. 18, *melanopyga* p. 30 Mozambique, *ugandana* Uganda, S. Rhodesia p. 19, *maculata* p. 25, *bensoni* p. 84, *calypso* p. 92, *elektra* p. 97 S. Rhodesia, *mixta* Fr. Guinea p. 30, *tarsalis* p. 35, *kappa* p. 68 Portuguese E. Africa, *iota* S. Africa p. 37, *microps* Fr. W. Africa p. 39, *pervasa* Nyasaland p. 59, *obscuripennis* Fr. Congo p. 61, *maréei* Congo, Uganda p. 62, *natalensis* Natal p. 69, *angulifera* p. 76, *nigrofulva* p. 79, *acuticornis* p. 90, *sugilloides* p. 92 Cape Province, *maculipes* Zululand p. 84, *chariensis* Shari p. 106, *villiersi* Dahomey p. 111 **spp. n.** figs., PAS-

TEELS Mém. Soc. ent. Belg. **26**.—*A. octava* **sp. n.** Belg. Congo p. 97 figs., PASTEELS Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79.—*A. elisurbis* p. 126, *upembae, nona* p. 128, *decipiens* p. 129 **spp. n.** Belg. Congo figs., PASTEELS Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 17.

Athalia malagassa characters p. 375, larva p. 376 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

Calameuta sculpturalis **sp. n.** Chekiang p. 26 figs., MAA Chinese J. Zool. **3** 1949.

Calarge bequaerti see *Sjoestedtia hilaris*.

Cephalcia tienmua **sp. n.** Chekiang p. 33 figs., MAA Chinese J. Zool. **3** 1949.—*C. marginata* **sp. n.** Canada, U.S.A. p. 133, MIDDLEKAUFF Pan-Pacif. Ent. **29**.

Cephaleia alpina all stages p. 210 figs., RÖHRIG Z. angew. Ent. **35**.

Cephalocephus see *Urosyrista*; *xanthus* see *U. montana*.

Cephus aurorae **sp. n.** Kiangsu p. 28 figs., MAA Chinese J. Zool. **3** 1949.

Distega inaequalis **sp. n.** Belg. Congo p. 119 fig., PASTEELS Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 17.

Dulophanes major ♀ p. 124, PASTEELS t.c.

Erythraspides afra p. 120, *acuticornis* p. 122 **spp. n.** Belg. Congo figs., PASTEELS t.c.

Eurogaster **gen. n.** for *Sciapteryx arctica* Kiaer p. 236, ZIRNGIEBL Mitt. münch. ent. Ges. **43**.

Fenella granulata **sp. n.** Algeria p. 136; key to European and Mediterranean spp. p. 137; *monilicornis* Thoms. (=*famosa* Bens.); *minuta* T. (=*voigti* Her.) p. 138 figs., BENSON Proc. R. ent. Soc. Lond. (B) **22**.

Hartigia agilis F. Sm. (=*draconis* Maa) p. 23 figs., MAA Chinese J. Zool. **3** 1949.

Hoplocampoides status discussed; *xylostei* systematic position discussed p. 237, ZIRNGIEBL Mitt. münch. ent. Ges. **43**.

Janus gussakovskii Fukien p. 19, *stigmaticus* Kiangsu p. 20 **spp. n.** figs., MAA Chinese J. Zool. **3** 1949.—*J. giganteus* see *Sinicephus*.

Jungicephus **gen. n.** p. 21, *mandibularis* **sp. n.** China p. 22 figs., MAA Chinese J. Zool. **3** 1949.

Lycaota existence of European sp. discussed pp. 237–238, ZIRNGIEBL Mitt. münch. ent. Ges. **43**.

Lygaeonematus pini morphology p. 12 figs., SCHEDL Die kleine Fichtenblattwespe.—*L. pallipes* **var. n.** *femoralis* Bavaria p. 32, ZIRNGIEBL Nachr-Bl. bayer. Ent. **2**.

Megalodontes nitidus **sp. n.** Heilungkiang, China p. 40 figs., MAA Chinese J. Zool. **3** 1949.

Nematus umbratus Thoms. (=*collinus* Cam.); *olfaciens* p. 61, (*Pontania*) *coriaceus* p. 150 Britain, (*P.*) *tuberculatus* Eire p. 151 **spp. n.** figs., BENSON Ent. mon. Mag. **89**.

Neurotoma sulcifrons **sp. n.** Fukien p. 35 figs., MAA Chinese J. Zool. **3** 1949.

Orussus japonicus ♀ further characters p. 34, WATANABE & KOSUGI Insecta matsum. **18** 1952.—*O.* (*Oryssus*) *henschii, unicolor* distinguishing characters p. 18 figs., GUIGLIA Boll. Soc. ent. ital. **82** 1952.

Pachyprotasis rapae, antennata larvae p. 184, WEIFFENBACH Z. wien. ent. Ges. **38**.

Pamphilius armatus **sp. n.** Kirin, China p. 37 figs., MAA Chinese J. Zool. **3** 1949.

Pampsilota leleupi **sp. n.** Belg. Congo p. 116 figs., PASTEELS Mém. Soc. ent. Belg. **26**.

Pontania viminalis all stages p. 766 figs., KIKUTI Zool. Mag., Tokyo **51** 1939 [in Japanese].

Pristiphora puncticeps Ths. a good sp.; *p., staudingeri* Ruthe (=*hyperborea* Mal. p. 220, *asperlata* Bens. p. 222) ♂♂ genitalia p. 221; *pusilla* Mal. a good sp.; *bensoni* Swiss Alps, *thomsoni* Sweden **spp. n.** p. 223 figs., LINDQVIST Opusc. ent. **18**.—*P. fuscata* larva p. 231 fig., CHAMBERS Ent. mon. Mag. **89**.

Sciapteryx arctica see *Eurogaster*.

Sinicephus **gen. n.** for *Janus giganteus* End. p. 23 figs., MAA Chinese J. Zool. **3** 1949.

Sjoestedtia hilaris Konow (=*rufa* Fors., *Calarge bequaerti* Ens.) p. 125; *meruensis* Konow (=*aethiopica* Ens.) p. 126 figs., PASTEELS Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 17.

Stauronema see *Stauronematus*.

Stauronematus **n. n.** for *Stauronema* Bens. nec Soll. p. 153, BENSON Ent. mon. Mag. **89**.

Tenthredo celtica **sp. n.** England p. 275 fig., BENSON t.c.—*T. bipunctula*, p. 182, *mioceras* p. 183 larvae, WEIFFENBACH Z. wien. ent. Ges. **38**.

Triarge see *Arge*.

Urosyrista Maa (=*Cephalocephus* Bens.); *montana* Maa (=*C. xanthus* Bens.) p. 25 figs., MAA Chinese J. Zool. **3** 1949.

Xyela exilicornis **sp. n.** Fukien p. 31 figs., MAA t.c.

LEPIDOPTERA.

Supplement to Lepidoptera of Poland, II, ADAMCZEWSKI 1951 Bull. ent. Pologne **20**: 75–93.

Lepidoptera of Zamosc, S.E. Poland, ALBERTI Z. Lepid. **3**: 51–58.

Corrections to Vorbrodt's alpine Lepidoptera of the Jura Mts., AUBERT Rev. franç. Lépid. **14**: 31–34.

The Macrolepidoptera of Central Germany, BERGMANN Bd. II (Rhopalocera) 1952 xii & 495 pp. 69 pls. (4 col), 92 figs.; Bd. III (Bombyces & Sphinges) xii & 552 pp. 56 pls. (5 col.), 99 figs.

Lepidoptera of Germany, I, BRANDT Winters naturw. Taschenbücher Bd. 20 176 pp. 64 col. pls. 55 figs.

List of Lepidoptera of Bergell Valley, Graubünden, Switzerland (contd.), DE BROS & THOMANN Ent. NachrBl. **5**: 1–5, 1 pl., 21–23, 1 pl. (Corrigenda by de Bros. **5**: 51–52.)

Lepidoptera from Amazonas region and Peru, BRYK Ark. Zool. (N.S.) **5**: 1–268, 9 figs.

Contribution to the Macrolepidoptera of Vlieland, CAMPING Ent. Ber., Amst. **14**: 273–279, 1 map.

Larvae of Lepidoptera of USSR, pt. I (keys p. 174), GERASIMOV 1952 Fn. USSR, Insects: Lepidoptera **1** no. 2: 1–338, 149 figs.

Lepidoptera of Sardinia, HARTIG & AMSEL 1952 Fragm. ent., Rome **1**: 1–152, 7 pls., 53 figs.

Check list of British Lepidoptera with popular names, 2nd. edn., HESLOP 1947 85 pp.

First and second supplements to check list of British Lepidoptera with popular names, HESLOP Ent. Gaz. **4**: 29–33, 265.

List of Lepidoptera of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl.: 7–37, figs.

Additions to Grossbeck's 1917 check-list of Florida Lepidoptera, KIMBALL Florida Ent. **36**: 103–107.

Relation of tympanal organs of Lepidoptera to systematics, KIRIAKOFF Ent. Ber., Amst. **14**: 246–250, 2 figs.

Lepidoptera of valley of lower Nida, Poland, KOSTROWICKI Fragm. faun. Mus. zool. polon. **6**: 263–447, 2 pls. 61 figs.

Macrolepidoptera of Hungary and their distribution, KOVÁCS Folia ent. hung. (N.S.) **6**: 77–164, 1 fldg. map.

Lepidoptera of Ennsdorf area, Austria, KUSDAS Z. wien. ent. Ges. **38**: 128–130, 145–147.

First supplement to catalogue of Netherlands Macrolepidoptera, LEMPKE Tijdschr. Ent. **96**: 239–305, 3 pls.

Illustrated handbooks to Swedish Lepidoptera, NORDSTRÖM Del I (5th revd. edn.) 1950 76 pp. 10 pls. (6 col.), 17 figs.; Del II (4th edn.) 1952 61 pp. 9 pls. (5 col.), 18 figs.; Del III (2nd edn.) 1950 73 pp. 9 pls. (5 col.), 8 figs.

Additions to catalogue of Swedish Macrolepidoptera, NORDSTRÖM Opusc. ent. **18**: 75–87.

Additions to Lepidoptera of Lower Austria, REISSER Z. wien. ent. Ges. **38** : 247–250.

Some Lepidoptera of Vorarlberg and Tyrol, SCHAWERDA Dtsch. ent. Z., Iris **55** 1942 : 7–16, 2 pls.

Contribution to the Lepidoptera of St. Peter i.d. Au area, Lower Austria, SCHWINGENSCHUSS Z. wien. ent. Ges. **38** : 37–39, 77–78 etc.

Second supplement to Lepidoptera of Oberlausitz, Saxony, STARKE 1942 Dtsch. ent. Z., Iris **55** : 127–133.

Key to and atlas of Centr. European Lepidoptera, Key TYKAČ 1949 216 pp. 71 figs. ; Atlas KOMÁREK & TYKAČ 1952 113 pp. 48 col. pls.

Lepidoptera collected in the Gilbert Is., VIETTE Ann. Soc. ent. Fr. **122** : 123–130.

Lepidoptera of Tristan da Cunha, VIETTE 1952 Results Norweg. Exped. T. da Cunha 1937–1938 no. 23 : 1–19, 3 pls. 19 figs.

Some Macrolepidoptera from Salzburg, WITZMANN Z. wien. ent. Ges. **38** : 30–31.

Lepidoptera of Central Europe, FORSTER & WOHLFAHRT 1952 Lief. 2 Bd. II (Satyridae (contd.)—Nymphalidae (in part) pp. 33–64, pls. 5–8 (col.), figs. 14–21.

Rhopalocera.

Notes on some Lepidoptera of Northern Territory, Australia, ANGEL 1951 Trans. roy. Soc. S. Aust. **74** : 6–14, 1 pl.

Some S. African butterflies, CLARK & DICKSON 1952 iv & 44 pp. 10 pls. (4 col.) 3 figs.

List of Rhopalocera collected in the Cameroons by C. de Raemy, CONDAMIN Bull. Inst. franç. Afr. noire **15** : 1037–1045.

Lepidoptera of Kivu, V, DUFRANE Bull. Ann. Soc. ent. Belg. **89** : 41–57.

New records and check list of butterflies from Hong Kong, ELIOT Mem. Hong Kong biol. Circle no. 2 : 1–14, 3 pls.

Grypocera and Rhopalocera of Gard, France, GAILLARD Rev. franç. Lépid. **13** : 299–311 ; **14** : 35–39.

Checklist of Rhopalocera of Carteret County, N. Carolina, MATURO J. Elisha Mitchell sci. Soc. **69** : 150–155.

Butterflies of Rhodesia, PINHEY 1949 vi & 208 pp. 21 pls. (15 col.) 13 figs.

Rhopalocera of Celebes, RÖBER 1940 Dtsch. ent. Z., Iris **53** : 89–117, 1 fig.

Some Rhopalocera collected by the Dainelli Mission 1937–38 to Lake Tana, E. Africa, STORACE Doriana **1** no. 38 : 1–8.

Butterflies of South Africa, SWANEPOEL 320 pp. 25 pls. (17 col.), 6 figs.

List of Rhopalocera from Grampian Mts., western Victoria and vicinity, TINDALE Rec. S. Aust. Mus. **11** : 60–63, 4 pls. 4 figs.

Some Rhopalocera from Princes I., W. Java, WEGNER Idea **9** : 46–50, 1 pl.

DANAIDAE.

Taxonomic value of ♂ genitalia in Ithomiidae, FOX Ent. News **64** : 141–143.

Callithomia phagesia **subsp. n.** *phagesina* Ecuador, Peru p. 32, BRYK Ark. Zool. (N.S.) **5**.

Ceratinia nise **subsp. n.** *gabriella* Guiana, Amazonas, Peru p. 44, BRYK t.c.

Dircenna jemima **subsp. n.** *differenciata* (with **f. n.** *derivata* p. 41) (also Colombia, Venezuela) p. 40 ; *xanthophane* **subsp. n.** *melini* p. 42 Peru, BRYK t.c.

Episcada sexpunctata **sp. n.** Peru p. 46, BRYK t.c.

Euploea zoo-geographical study of spp. from Micronesia, Melanesia, Polynesia and Australia pp. 1–184 ; *lewinii* **subsp. n.** *brunnescens* Santa Cruz Is. p. 79 ; *batesii* **subspp. n.** *auritincta* Bismarck Arch., *trobriandensis* Trobriand Arch. p. 87, *kunggana* Solomon Is., *leucacron* "San Cristoval" p. 89 ; *alcathoë* **subsp. n.** *samaraina* Samarai I., New Guinea p. 90 ; *rennellensis* Solomon Is., *umboina* Bismarck Arch. **spp. n.** p. 92 ; *algea* **subspp. n.** *reginae* N.W. Australia p. 93, *albomarginata* Solo-

mon Is. p. 97, *matemae* Santa Cruz. Is. p. 101; *treitschkei dampierensis* **n. n.** for *intermedia* Roths. nec Moore p. 106; *t.* **subspp. n.** *eulegnica* Bismarck Arch. p. 107, *suffusca* Trobriand Arch. p. 109; *tulliolus* **subsp. n.** *goodenoughi* Goodenough I. p. 112; *pyres* **subsp. n.** *paucinotata* Choiseul p. 114; *stephensii* **subsp. n.** *nivana* Louisiade Arch. p. 116; *nemertes* **subspp. n.** *rossi* Solomon Is., *crucis* p. 122, *eustachiella* p. 123 Santa Cruz Is. figs., CARPENTER Trans. zool. Soc. Lond. **28.**

Greta dercetis **subsp. n.** *incas* Venezuela, Colombia; *polissena* **subsp. n.** *breviala* Ecuador, Costa Rica, Brazil p. 52, BRYK Ark. Zool. (N.S.) **5.**

Hypoleria cidonia **subspp. n.** *sanbernardi* (also Colombia, Ecuador), *iquitina* p. 49; *garleppi* **subsp. n.** *romani* p. 50; *oriana* **subsp. n.** *orianula* (also Peru) p. 51 Amazonas, BRYK t.c.

Hyposcada anchiala **subsp. n.** *ecuadorina* Ecuador p. 45, BRYK t.c.

Hypothyris ninonia completa **f. n.** *marginepura* Antilles, Amazonas; *n.* **subsp. n.** *luxuriosa* Amazonas p. 33, BRYK t.c.

Ituna lamirus **subsp. n.** *phenaretidia* Ecuador, Colombia etc. p. 22; *phenarete* **subsp. n.** *lamiridia* Peru, Bolivia p. 23, BRYK t.c.

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Zaretis itys **f. n.** *monops* Mexico, Surinam etc. p. 118, BRYK t.c.

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Abisara talantus **f. n.** *muanensis* Kivu p. 47, DUFRANE Bull. Ann. Soc. ent. Belg. **89.**

Amarynthis meneria **subsp. n.** *peruana* Peru p. 127, BRYK Ark. Zool. (N.S.) **5.**

Crocozona fasciata **ff. n.** *ovalis* p. 122, *holmgreni* p. 123 Peru, Bolivia, BRYK t.c.

Dodona eugenes **subsp. n.** *esakii* Formosa p. 23 figs., SHIRÔZU Sieboldia **1** 1952.

Emesis zela ares egg p. 129 figs., COMSTOCK Bull. S. Calif. Acad. Sci. **52.**

Helicopis acis nigrobasalis **f. n.** *conspecifica* Guiana, Brazil; *cupido* **subsp. n.** *manaos* Surinam, Trinidad, Guiana etc. p. 123, BRYK Ark. Zool. (N.S.) **5.**

Lyropteryx apollonia **subsp. n.** *musageta* Brazil, Bolivia-Colombia p. 124, BRYK t.c.

Nymphidium caricae **subsp. n.** *undulata* S. Amerca p. 129, BRYK t.c.

Orimba staudingeri **subsp. n.** *enigma* Amazonas p. 132, BRYK t.c.

Stalachtis calliope **f. n.** *melini* S. America p. 130, BRYK t.c.

Themone pais **subsp. n.** *bambino* S. America p. 124, BRYK t.c.

LYCAENIDAE.

Systematic notes on some W. European Lycaenidae, STEMPFFER Lambillionea **53** : 12–18.

Lycaenidae of Réserve du Nimba, Fr. Guinea, STEMPFFER 1952 Mém. Inst. franç. Afr. noire no. 19 : 145–149, 2 figs.

Some Abyssinian Lycaenidae, STORACE Doriana **1** no. 35 : 1–4.

Notes on some Italian Lycaenidae, STORACE Mem. Soc. ent. ital. **31** : 135–154.

Amblypodia ammonides elira early stages p. 517, NORMAN J. Bombay nat. Hist. Soc. **51.**

Aphnaeus affinis **subsp. n.** *seydeli* p. 68; *orcas* **ff. n.** *overlaeti*, *fontainei* p. 70 Belg. Congo, BERGER Lambillionea **52** 1952.

Arhopala ariel subsp. *asakurae*, Mats. (=*uchidae* Mats.) p. 155 figs., SHIRÔZU Sieboldia **1.**

Artopöetes pryeri **subsp. n.** *continentalis* Korea, Manchuria p. 20 figs., SHIRÔZU Sieboldia **1** 1952.

Azanus mirza **ff. n.** *deficiens*, *ornata* Kivu p. 55, DUFRANE Bull. Ann. Soc. ent. Belg. **89.**

Baliochila **gen. n.** for *Liptena aslauga* Trim. (type) p. 85, *Teriomima hildegarda* Kby. (=*T. freya* Sm. & Kby.) p. 89, *T. stygia* Talb. (not f. of *minima*) ♀ p. 93, *T. woodi* Ril. p. 94, *T. minima* H. Sm. p. 96, *T. m. latimarginata* H. Sm. p. 97; *barnesi* S.E. trop. Africa p. 86, *neavei* Nyasaland, Brit. Centr. & E. Africa, Mozambique p. 88, *dubiosa* Br. E. Africa p. 90, *nyasae* Nyasaland p. 92, *fragilis* Kenya, Somaliland p. 95, *lipara* Nyasaland, Kenya, S. Rhodesia p. 99, *singularis* S. Africa, S. Rhodesia p. 100 **spp. n.**; *minima* **subsp. n.** *amanica* Tanganyika, Br. E. Africa p. 97 figs., STEMPFFER & BENNETT Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**

Candalides hyacinthina **var. n.** *josephina* Victoria p. 33 fig., HARRIS N. Qd Nat. **20** 1952.—*C. hyacinthina* (& var. *josephina*), *simplexa* status discussed p. [1–3], HARRIS op. cit. **21.**

Catochrysops nandensis **f. n.** *abyssiniae* Abyssinia p. 3, STORACE Doriana **1** no. 35.

Chrysophanus virgaureae German and Northern races discussed pp. 95–100; *v.* **subsp. n.** *rhenana* Germany p. 99 figs., HEYDEMANN Dtsch. ent. Z., Iris **55** 1942.

Cnodontes **gen. n.** for *Durbania pallida* Trim. (type) p. 101; *vansomereni* **sp. n.** Kenya, Nyasaland etc. p. 103 figs., STEMPFFER & BENNETT Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**

Durbania pallida see *Cnodontes*.

Echinargus huntingtoni **sp. n.** Trinidad p. 99, RINDGE & COMSTOCK J. N.Y. ent. Soc. **61.**

Epitola nitida ♀ p. 50 ; *pulverulenta* **sp. n.** Kivu p. 51, DUFRANE Bull. Ann. Soc. ent. Belg. **89.**

Eumaeus minijas **subsp. n.** *splendidissima* Texas–Brazil, Costa Rica etc. p. 132, BRYK Ark. Zool. (N.S.) **5.**

Favonius hayashii **sp. n.** Japan p. 61, SHIRÔZU Kontyû **19** 1951 [not seen].

Hemiargus isolus pupa p. 129, REMINGTON Psyche **59.**

Hewitsonia kirbyi **f. n.** *gomensis* Kivu p. 52, DUFRANE Bull. Ann. Soc. ent. Belg. **89.**

Hypolycaena antifaunus **ab. n.** *latefasciata* ; *lebona* **abb. n.** *splendens*, *anomala* Kivu p. 52 ; *duponti* Dufr. raised to sp. from ab. of *coeculus* p. 53, DUFRANE t.c.

Iolaus aetheria ♀ p. 53, DUFRANE t.c.

Jamides bochus **subsp. n.** *ishigakianus* Loochoo Is. p. 155 figs., SHIRÔZU Sieboldia **1.**

Larinopoda agyra **ab. n.** *deficiens* Kivu p. 48, DUFRANE Bull. Ann. Soc. ent. Belg. **89.**

Liptena eukrines **f. n.** *obsoleta* ; *mwagensis* **sp. n.** Kivu p. 49, DUFRANE t.c.—*L. aslauga* see *Baliochila.*

Lycaeides argyrognomon **subsp. n.** *shirahatai* Japan p. 156 ; *subsolana yagina* Strand (=*shiroumana* Mats.) p. 157 figs., SHIRÔZU Sieboldia **1.**

Lycaena corydon var. *altica* **ab. n.** *pseudo-asturiensis* Austria p. 12, SCHAWERDA Dtsch. ent. Z., Iris **55** 1942.—*L. idas, optilete* German and Northern races discussed pp. 100–106 ; *i.* **subsp. n.** *rhenana* Rhine Valley p. 104 ; *o.* **f. n.** *clara* Denmark p. 106 figs., HEYDEMANN Dtsch. ent. Z., Iris **55** 1942.—*L. icarescheri* see *Polyommatus icarus.*

Lycaenopsis status of Indian spp. discussed p. 755, EVANS J. Bombay nat. Hist. Soc. **51.**—*L. ceyx cerima* characters (♂) p. 515, NORMAN J. Bombay nat. Hist. Soc. **51.**

Maculinea euphemus matsumurai **n. n.** for *e. jezoensis* Mats. 1926 nec *orion jezoensis* Mats. 1919 p. 155 figs., SHIRÔZU Sieboldia **1.**

Mitoura nelsoni subsp. *muiri* identity discussed p. 95 figs., TILDEN Lepidopt. News **6.**

Nacaduba kurava **subsp. n.** *septentrionalis* Japan p. 156 figs., SHIRÔZU Sieboldia **1.**

Neozephyrus taxila **subsp. n.** *monticola* Japan p. 22 figs., SHIRÔZU Sieboldia **1** 1952.

Ogyris hewitsoni **subsp. n.** *parsonsi* Australia p. 9 figs., ANGEL Trans. roy. Soc. S. Aust. **74** 1951.

Palaeochrysophanus hippothoë **subsp. n.** *engadiniana* Switzerland p. 6, BEURET Mitt. ent. Ges. Basel (N.F.) **3.**

Pentila cloetensi **ab. n.** *latefascia* Kivu p. 47, DUFRANE Bull. Ann. Soc. ent. Belg. **89.**

Philotes rita egg p. 127 figs., COMSTOCK Bull. S. Calif. Acad. Sci. **52.**

Plebeius ramburi **subspp. n.** *navarredondae, elsae* p. 206, *trevincae* p. 207 Spain, WYATT Z. wien. ent. Ges. **37** 1952.

Polyommatus icarus Rott. (=*Lycaena icarescheri* Wrli.) pp. 69–74, 85–89 figs., BEURET Mitt. ent. Ges. Basel (N.F.) **3.**—*P. chiron* Swedish forms pp. 116–121 ; *chiron* **ff. n.** *arenicola* (with **abb. n.** *vittatus, confluens, exoculatus* p. 119), *praticola* Sweden p. 116 figs., BURRAU Opusc. ent. **18.**—*P.* (*Plebeius*) *eversmanni* (with **subsp. n.** *firuskuhi* N.W. Afghanistan p. 73), (*P.*) *lucifera* (with **var. n.** *selengensis* Siberia p. 77), (*P.*) *felicis* systematic notes on Central Asian forms pp. 70–84 figs., FORSTER Dtsch. ent. Z., Iris **54** 1941.

Pseudaletis richardi **sp. n.** Fr. Guinea p. 146 figs., STEMPFFER Mém. Inst. franç. Afr. noire no. 19 1952.

Pseudalmenus chlorinda **subsp. n.** *fischeri* Victoria p. 52 ; *c.* key to races p. 55 figs., TINDALE Rec. S. Aust. Mus. **11.**

Teriomima revision of African spp. pp. 79–85 ; *subpunctata* Kirby (=*delicatula* K.) ♂ p. 82 figs., STEMPFFER

& BENNETT Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.—*T. hildegarda* (*freya*), *stygia*, *woodi*, *minima*, *m. latimarginata* see *Baliochila*.

Zephyrus quercus **f. n.** *caerulea* Austria p. 102, SCHWINGENSCHUSS Z. wien. ent. Ges. **38**.

PIERIDAE.

Some Pieridae of Fernando Po, BERNARDI Bull. Inst. franç. Afr. noire **15** : 1437–1440, 2 figs.

Pupae of some Japanese Pieridae, KAWADA 1939 Zool. Mag., Tokyo **51** : 440–446, 14 figs.

Eggs of Pieridae, SARLET Lambillionea **53** : 54–63.

Anaphaeis see *Belenois*.

Anthocharis cardamines abb. *arsenoides*, *androgyna* descriptions p. 65, COCKAYNE Ent. Rec. **65**.—*A. cardamines* **f. n.** *lineata* Holland p. 275 figs., LEMPKE Tijdschr. Ent. **96**.

Aporia crataegi **subsp. n.** *transiens*, **f. n.** *nonconspersa* Holland p. 283 figs., LEMPKE t.c.

Appias albina semperi Moore (= *kawakamii* Mats.) p. 16 figs., SHIRÔZU Sieboldia **1** 1952.

Belenois Hb. (= *Anaphaeis* Hb., *Glycesta* Billb., *Pseudohuphina* Stoneham); *Pseudanaphaeis* **subgen. n.** p. 50; genitalia of *hedyle*, *calypso*, *antsianaka* groups pp. 51–53 figs., BERNARDI Rev. franç. Ent. **20**.—*B. victoria* **subspp. n.** *hecqi* p. 209, *schoutedeni* p. 210 Belg. Congo, BERGER Rev. Zool. Bot. afr. **48**.

Charonias eurytele **subsp. n.** *peruvionias* (with **f. n.** *cellopura* p. 12) Ecuador, Colombia etc. p. 11, BRYK Ark. Zool. (N.S.) **5**.

Colias croceus, *electo* relationship discussed pp. 521–542; early stages p. 528 figs., JARVIS Trans. R. ent. Soc. Lond. **104**.—*C. electo* **subsp. n.** *philbyi* p. 171, **ff. n.** *bafanae*, *pauper*; *erate marnoana* **f. n.** *solilucis* p.172 Arabia, BERGER Entomologist **86**.—*C. nastes werdandi* **abb. n.** *alba* p. 150, *bruneomaculata*, *palaeonoides*, *ellingeri*, *grisea* p. 151, *mariannae*, *nigrita* p. 152 Swedish Lapland figs., SCHULTE Ent. Z. **62**.—*C. marnoana* Rog. a subsp. of *erate* Esp. (= *hyale* subsp. *afghana* B.-H.) not of *hyale* p. 66, ALBERTI Ent. Z. **63**.—*C. palaeno* **r. n.** *altotineensis* p. 7, **abb. n.** *rubeopunctata*, *roseomaculata* p. 8 Maritime Alps, LORITZ Bull. Soc. ent. Mulhouse **1953**.

Dismorphia ithomia **subsp. n.** *douglasina* Ecuador, Peru p. 20, BRYK Ark. Zool. (N.S.) **5**.

Eurema brigitta formosana Mats. (= *dorothea* Nak.) p. 151; *esakii* **sp. n.** Formosa p. 152 figs., SHIRÔZU Sieboldia **1**.

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Leptidea sinapis **f. n.** *infraflava* Holland p. 274 figs., LEMPKE Tijdschr. Ent. **96**.

Melete laria luisella **f. n.** *subtuspicta* Peru, Bolivia p. 13, BRYK Ark. Zool. (N.S.) **5**.

Pereute leucodrosime bellatrix **ff. n.** *aurantiaca*, *sinemacula* Colombia, Peru, Venezuela, Ecuador p. 10, BRYK t.c.

Phoebis philea **f. n.** *androchroma* Peru p. 17; *statira* **f. n.** *discoflava* Amazonas p. 18, BRYK t.c.

Pieris pylotis **f. n.** *bahiana* Brazil, Argentina p. 9, BRYK t.c.—*P. dulcinea* Butl. a subsp. of *napi* p. 154 figs., SHIRÔZU Sieboldia **1**.—*P. napi* **subsp. n.** *japonica* Japan p. 18 figs., SHIRÔZU Sieboldia **1** 1952.—*P. napi* distribution and geographical races pp. 33–42, HESSELBARTH Z. Lepid. **3**.—*P. napi* **ab. n.** *fasciata* England p. 25, KAUTZ Z. wien. ent. Ges. **38**.—*P. napi*, *bryoniae*, *adalwinda* & mod. *hibernica* characters and status pp. 258–261, KAUTZ Z. wien. ent. Ges. **38**.—*P. napi-bryoniae* problem pp. 31–35, 45–50, PETERSEN Ent. Nachr-Bl. **5**.—*P. napi* **ff. n.** *fuscosignata* p. 287, *conjuncta* p. 288; *rapae* **ff. n.** *pseudaestica*, *lacticolor*, *fuscosignata* p. 295, *cordata*, *longomaculata*, *magnomaculata* p. 296, *obsoleta*, *disconulla* p. 297, *nigrans* p. 298, *infrapallida*, *flavopicta* p. 299; *brassicae* **ff. n.** *lacticolor*, *longomaculata* p. 301, *fuscosignata*, *perflava* p. 303, *aversomaculata* p. 304 Holland; *r.* f. *fasciata* Tutt (= f. *trimacula* Verity) p. 296; *b.* f. *fasciata* Kief. (= *trimacula* Rocci, *maria* Mell., *alligata* Cab.) p. 302 figs., LEMPKE Tijdschr. Ent. **96**.

Pontia daplidice **f. n.** *alligata* Holland p. 281 figs., LEMPKE t.c.

Pseudanaphaeis **subgen. n.** (type *gidica* God.) see *Belenois*.

Pseudohuphina see *Belenois*.

Terias salome **subsp. n.** *saba* Mexico, Venezuela etc. p. 15, BRYK Ark. Zool. (N.S.) **5**.

Zerene caesonia discussion of Mexican forms pp. 257–267 figs., VÁZQUEZ G. Ann. Inst. Biol., Mexico **23** 1952.

PAPILIONIDAE (BARONIIDAE, PARNASSIIDAE, TEINOPALPIDAE).

Classification of Argentine Papilionidae (list p. 281, keys p. 283), HAYWARD 1952 Acta zool. lilloana **12** : 279–330, 8 pls.

Eggs of Papilionidae, SARLET Lambillionea **53** : 26–32.

Battus revision of spp. of Ecuador (keys p. 45) pp. 41–60 figs., BROWN Rev. ecuator. Ent. Parasit. **1** no. 3.

Papilio additions and corrections to revision of African spp. of *nireus* group pp. 75–76, STORACE Lambillionea **52** 1952.—*P. aeneas* **subsp. n.** *gabrieliensis* Guiana, Amazonas etc. p. 4; *erlaces* **subsp. n.** *douglasi* Ecuador-Argentina; *vertumnus* **subsp. n.** *vertumnalis* Colombia-Bolivia, Para, Guiana p. 5; *péon* **subsp. n.** *perugino* p. 6; *zagreus* **f. n.** *feminina* Venezuela, Colombia etc.; *aristeus* **subsp. n.** *melini* S. America-Panama p. 7; *ariarathes* **subsp. n.** *muscae* Colombia-Bolivia, Guiana, Brazil p. 8, BRYK Ark. Zool. (N.S.) **5**.—*P. rex alinderi* **f. n.** *holmi* E. Africa p. 48; *deianira* type locality discussed p. 100, BRYK Ent. Tidskr. **74**.—*P. machaon* **f. n.** *gynaecotropa* Germany p. 65 fig., BRYK Opusc. ent. **18**.—*P. machaon* **ff. n.** *flavofasciata* p. 267, *occlusa* p. 268, *lunulacarens*, *apertalunulata* p. 270 Holland figs., LEMPKE Tijdschr. Ent. **96**.—*P. hesperus* **ff. n.** *mariae*, *punctata*; *mackinnoni* **f. n.** *addenda* Kivu p. 43, DUFRANE Bull. Ann. Soc. ent. Belg. **89**.—*P. eracon* **f. n.** *ochracea*; *loadamas copane* **f. n.** *media* p. 171; *loadamas procas* **f. n.** *ochracea* p. 173 Mexico; *philolaus* colour variation p. 174 figs., VÁZQUEZ G. An. Inst. Biol., Mexico **24**.

Parnassius mnemosyne nomenclature of abb. pp. 12–15; ab. *arenaria* Stich. (=ab. *arcuata* Hke); ab. *taeniata* Stich. (=ab. *taeniata* Hke, *fasciata* Hke); **ab. n.** *hirschkei*; ab. *ulrichi* Vorb. not a syn. of ab. *semifasciata* Hke p. 13; ab. *bargeri* Risch. not a syn. of ab. *perversa* Bryk (=ab. *semifasciata* Hke) p. 14; ab. *cardinalis*, ab. *ulrichi* status discussed p. 15; *apollo* nomenclature of abb. pp. 15–17; ab. *theiodes* Schaw. correct description p. 15; ab. *chryseis* Verity not a syn. of ab. *theiodes*; **ab. n.** *trimaculifer* p. 16; ab. *ostentatus* Osth. not syn. of ab. *dentatus* Bryk; *rubromarginata* Shelj. an ab. of *tianschanicus* Obth. not of *apollo* p. 17; *phoebus* nomenclature of abb. pp. 17–18; ab. *trosti* correct description; ab. *plurimaculata* Nits. valid p. 17; abb. *barthae*, *ines* distinguishing characters p. 18, HOFFMANN Z. wien. ent. Ges. **38**.—*P. apollo* criticism of Issekutz's revision of Carpathian subspp. pp. 106–110; subsp. *strecsnoensis* Pax (=subsp. *nitriensis* Iss.); subsp. *carpathicus* R. & R. (=subsp. *rosnaviensis* Iss.) p. 108, PEKARSKY Z. wien. ent. Ges. **38**.

HESPERIIDAE.

Notes on some Hesperiidae of Northern Territory, Australia, COUCHMAN 1951 Trans. roy. Soc. S. Aust. **74** : 15–17.

Catalogue of American Hesperiidae, Part III (groups E, F, G) Pyrginae, Sect. 2, EVANS v & 246 pp. pls. 26–53.

Achlyodes busirus **subsp. n.** *rioja* Brazil etc. p. 176; *thraso* **subsp. n.** *sagra* Haiti etc. p. 177; *minna* Venezuela etc., *selva* Mexico etc. **spp. n.** p. 178 figs., EVANS Cat. Amer. Hesp. pt. III.—*A. plumbago* see *Plumbago*; *zera* see *Zera*.

Anastrus petius **subsp. n.** *peto* Guatemala, Honduras p. 184; *meliboea* **subsp. n.** *bactra* Bolivia etc.; *obscurus* **subspp. n.** *narva* Panama etc. p. 185, *chaqua* Peru, Bolivia p. 186 figs., EVANS Cat. Amer. Hesp. pt. III.

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Autochton jao Mab. (=*electrus* M.) from *Telemiades* p. 234 (in corrigenda to pt. II 1952 p. 126), EVANS t.c.

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Carcharodus alceae **f. n.** *albodetersa* Holland p. 243 figs., LEMPKE Tijdschr. Ent. **96.**

Carrhenes fuscescens **subspp. n.** *conia* Fr. Guiana, *bamba* Peru etc. p. 150 figs., EVANS Cat. Amer. Hesp. pt. III.

Carterocephalus palaemon **ff. n.** *scabellata*, *infralutea* Holland p. 250 figs., LEMPKE Tijdschr. Ent. **96.**

Cecropterus aunus **f. n.** *punctisignatus* Mexico–Paraguay p. 137, BRYK Ark. Zool. (N.S.) **5.**

Celaenorrhinus chamunda **subsp. n.** *subconcolor* Celebes p. 113, RÖBER Dtsch. ent. Z., Iris **53** 1940.

Charidia lucaria **subspp. n.** *pilea* Colombia, *pocus* Peru etc., *mayo* Peru p. 137 figs., EVANS Cat. Amer. Hesp. pt. III.

Chiomara asychis **subspp. n.** *simon* Colombia etc., *zania* Peru etc. p. 198, *vincenta* St. Vincent, *grenada* Grenada St. Lucia, Grenadines p. 199; *crenda* **sp. n.** Brazil p. 200 figs., EVANS t.c.

Clito **gen. n.** for *clito* F. (type) and other spp. pp. 16, 152; *littorea* **subsp. n.** *anda* Fr. Guiana p. 153; *sompa*, *tuva* Brazil, *zenda* Surinam **spp. n.** p. 154 figs., EVANS t.c.

Cogia hippalus **subspp. n.** *hiska* Costa Rica etc., *hester* Venezuela etc.; *azila* Bolivia p. 22, *mala* Guatemala p. 24 **spp. n.** figs., EVANS t.c.

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Cyclosemia leppa **sp. n.** Bolivia, Peru p. 70 figs., EVANS Cat. Amer. Hesp. pt. III.—*C. albata* see *Ocella*; *phidyle* see *Mimia*; *myris* see *Myrinia*.

Dalla gelus **subsp. n.** *fraterculus* Peru, Bolivia p. 139, BRYK Ark. Zool. (N.S.) **5.**

Diaeus lacaena **subspp. n.** *varna* Mexico etc., *ambata* Ecuador p. 99 figs., EVANS Cat. Amer. Hesp. pt. III.

Dicrosema **gen. n.**, *quadrifenestrata* **sp. n.** Brazil p. 143, BRYK Ark. Zool. (N.S.) **5.**

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Ectomis cythna **subsp. n.** *ega* Amazons p. 34 figs., EVANS Cat. Amer. Hesp. pt. III.

Eracon pebana **sp. n.** Amazons p. 36; *mnemon* **subsp. n.** *clada* Maranham p. 38 figs., EVANS t.c.

Fulda imorina ♂ p. 87; *bernieri* **subsp. n.** *pauliani* p. 88 Madagascar fig., EVANS Nat. malgache **4** 1952.

Gesta **gen. n.** for *Thanaos gesta* H.-S. (type) and other spp. pp. 171, 200; *inga* **sp. n.** Brazil p. 201 figs., EVANS Cat. Amer. Hesp. pt. III.

Gindanes brontinus **subsp. n.** *bronta* Peru etc.; *brebissoni* **subsp. n.** *brebna* Peru, Bolivia p. 116; *bora* **sp. n.** Brazil p. 117 figs., EVANS t.c.

Gorgopas gutta **sp. n.** Peru p. 72 figs., EVANS t.c.

Gorgythion beggina **subsp. n.** *vox* Guatemala etc. p. 101; *canda* **sp. n.** Paraguay etc. p. 102 figs., EVANS t.c.

Halpe gamma Evans (=*nephele formosana* Tan.) p. 12 figs., SHIRÔZU Sieboldia **1** 1952.

Helias phalaenoides **subsp. n.** *cama* Mexico etc. p. 194 figs., EVANS Cat. Amer. Hesp. pt. III.—*H. geometrina* see *Trina*.

Heliopetes alana **subsp. n.** *romaniana* Mexico–Brazil, Paraguay p. 145, BRYK Ark. Zool. (N.S.) **5.**—*H. randa* Brazil etc. p. 229, *chimbo* Ecuador p. 230 **spp. n.** figs., EVANS Cat. Amer. Hesp. pt. III.

Hesperilla crypsargyra **subsp. n.** *lesouefi* Victoria p. 56 figs., TINDALE Rec. S. Aust. Mus. **11.**

Heteropterus morpheus **f. n.** *luxurians* Holland p. 251 figs., LEMPKE Tijdschr. Ent. **96.**

Hyalothyris leucomelas **subsp. n.** *mucida* S. America p. 136, BRYK Ark. Zool. (N.S.) **5.**

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Pyrgus systematic and distributional notes on some European spp. pp. 1–13; revision of Palaearctic spp. in Tromsø Mus. p. 11 figs., OPHEIM Astarte no. 4.—*P.* (*Ateleomorpha*) revision of spp. of *alveus* group p. 90–103; *accreta* p. 95, *sifanicus* p. 96, *scandinavicus* p. 100 characters figs., WARREN Entomologist **86**.—*P. fritillarius* Poda, *fritillum* Schiff. status discussed p. 49, ALBERTI Ent. Z. **63**.—*P. carthami* interpretation of Hübner's original figures pp. 37–40, ALBERTI NachrBl. bayer. Ent. **2**.—*P. centaureae* **subsp. n.** *loki* Colorado p. 214 figs., EVANS Cat. Amer. Hesp. pt. III.—*P. reverdini* Oberth. status discussed pp. 284–286, KAUFFMANN Rev. franç. Lépid. **13**.—*P. polyctor* see *Polyctor*.

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Staphylus chlora Bolivia, Amazons, *eryx* Amazons p. 84, *shola* locality unknown, *perna* Brazil p. 89, *mossi* Peru p. 92, *saxos* (with **subsp. n.** *satrap* Bolivia) Colombia p. 94 **spp. n.**; *putumayo* **subsp. n.** *sambo* Amazons p. 85; *epicaste* **subsp. n.** *stanga* Ecuador p. 88; *mazans* **subsp. n.** *tierra* Mexico p. 90; *huigra* **subsp. n.** *canka* Peru p. 92; *minor* **subsp. n.** *manx* Colombia p. 95 figs., EVANS t.c.—*S. alicus* see *Viola*.

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Heterocera.

Additions to Swedish Catalogue, VI, Microlepidoptera, BENANDER Opusc. ent. **18**: 89–101.

Additions to list of Maltese Microlepidoptera, DE LUCCA Ent. mon. Mag. **89**: 129.

New Guinean Microlepidoptera, IV, DIAKONOFF Proc. Acad. Wet., Amst. (C) **56**: 474–485, 8 figs.

Microlepidoptera of New Guinea, Third Archbold Exped. 1938–1939, pt. II, DIAKONOFF Verh. Akad. Wet., Amsterdam (2) **49** no. 3: 1–166, 164 figs.

Some Microlepidoptera of Retyezát Range, Rumania, GOZMÁNY Ann. hist.-nat. Mus. hung. (N.S.) **4**: 181–185.

Catalogue of Microlepidoptera of France and Belgium, LHOMME Vol. 2 Part II [? 1947] fasc. 4: 489–648, 1948 fasc. 5: 649–808, fasc. 6 [? 1950]: 809–904, [? 1952]: 905–952.

Systematic notes on some Palaearctic Geometrids and Microlepidoptera, SZENT-IVÁNY 1942 Dtsch. ent. Z., Iris **55**: 109–124, 1 pl.

Additions to Heterocera of Maltese Is., VALLETTA Entomologist **86**: 8–9.

Additions to Microlepidoptera of Maltese Is., VALLETTA Entomologist **86**: 200–202.

Meyrick's types of Tortricoidea in Paris Museum (pp. 148–150) with additions to Tineid types (pp. 151–152), VIETTE Bull. Soc. ent. Fr. **57**.

Microlepidoptera of Würtemberg, II, WÖRZ Jh. Ver. vaterl. Naturk. Württemb. **107** 1952: 191–211; **108**: 90–118.

SYNTOMIDAE (AMATIDAE, CTENUCHIDAE, EUCHROMIDAE).

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Opharus procoides re-description p. 187 figs., FRAGOSO Rev. brasil. Biol. **13.**—*O. piperita* see *Bernathonomus.*

Paraona nigra p. 318, *fukiensis* p. 319 **spp. n.** China figs., DANIEL Bonn. zool. Beitr. **3.**

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Pericopis tricolora **subsp. n.** *romani* Brazil; *hypoxantha* **subsp. n.** *melini* Colombia, Venezuela etc. p. 223, BRYK Ark. Zool. (N.S.) **5.**

Phaloë cruenta **subsp. n.** *romani* Guatemala-Argentina p. 233, BRYK t.c.

Philea andereggi **f. n.** *clara* Austria p. 82, DANIEL NachrBl. bayer. Ent. **2.**

Phragmatobia fuliginosa bred in Uganda p. 175, SEVASTOPULO Ent. Rec. **65.**—*P. fuliginosa* ab. *flavescens* Sch. (=ab. *ochracea* Złot.) p. 84, ADAMCZEWSKI Bull. ent. Pologne **20** 1951.

Premolis flavithorax **subsp. n.** *gabrieli* Amazonas p. 212, BRYK Ark. Zool. (N.S.) **5.**

Spilarctia tschitaensis Transbaikalia, *hanoica* Tonkin **spp. n.** p. 252 figs., DANIEL Mitt. münch. ent. Ges. **43.**

Spilosoma menthastri characters distinguishing from *Hyphantria cunea* p. 58 figs., MOUCHA & WEISS Nachr. naturw. Mus. Aschaffenburg no. 39.

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AGROTIDAE
(PHALAENIDAE, NOCTUIDAE).

List and catalogue of Phalaenids of Jura Mts., AUBERT & BOURSIN Bull. mens. Soc. linn. Lyon **22**: 115–126.

Relation of tympanal organs of Hyblaeidae to classification, KIRIAKOFF Bull. Ann. Soc. ent. Belg. **89**: 258–263, 1 fig.

Argentine Cucullianae (key to genn. p. 137), KÖHLER 1952 Acta zool. lilloana **12**: 135–182.

Acantholeucania **subgen. n.** (type *loreyi* Dup.) see *Leucania*.

Acronicta (*Triaena*) *angustimacula* Centr. Asia p. 495, (*Pharetra*) *cinerascens* N. China p. 533 **spp. n.** figs., KOZHANCHIKOV Fn. SSSR, Ins. Lep. **12** 1950.—*A. megacephala, centralis, grumi, concerpta, superans* see *Subacronicta*; *jankowskii, albonigra* see *Hampsonia*.

Acronictoides **gen. n.** for *Gerbathodes lichenodes* Graes. p. 410 fig., KOZHANCHIKOV Fn. SSSR, Ins. Lep. **12** 1950.

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Allophyes additional characters p. 239; *asiatica* Stgr., *benedictina* Stgr. distinct spp. not ff. of *oxyacanthae*; ♂ antennae and groups of spp. p. 242; *metaxys* **sp. n.** N. Syria p. 245 figs., BOURSIN Mitt. münch. ent. Ges. **43**.—*A. powelli* **sp. n.** Morocco p. 138 figs., RUNGS C.R. Soc. Sci. nat. Maroc **1952**.

Amathes ochreago Hb., *brunneago* Stgr., *effundens* Cti., *xestiodes* Hps., *fuscisignata* Hps. from *Xestia* p. 67 (note) figs., BOURSIN Z. wien. ent. Ges. **38**.—*A. depuncta* bred p. 275; larva p. 276 figs., MACNICOL Ent. Rec. **65**.

Amphipyra perflua **ab. n.** *pallida* Denmark p. 96 fig., PEDERSEN & SØRENSEN Fyns Flora og Fauna **2** 1948.

Aporophyla albapice **sp. n.** Argentina p. 169, KÖHLER Acta zool. lilloana **12** 1952.

Arenostola delattini **sp. n.** Persia p. 217 figs., WILTSHIRE Proc. R. ent. Soc. Lond. (B) **22**.—*A. diamesa* see *Conicofrontia*.

Argyrana **gen. n.** (Cuculliinae), *excellens* **sp. n.** Argentina p. 147, KÖHLER Acta zool. lilloana **12** 1952.

Arthisma rectilinea **sp. n.** Sumatra p. 226 fig., ROEPKE Tijdschr. Ent. **89** 1948.

Belciades **gen. n.** for *Belciana niveola* Motsch. (not syn. of *staudingeri* Leech p. 444) p. 443 fig., KOZHANCHIKOV Fn. SSSR, Ins. Lep. **12** 1950.

Belciana niveola see *Belciades*.

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Brachylomia incerta **sp. n.** Argentina p. 171, KÖHLER t.c.

Brithys pancratii all stages p. 282 figs., BARBOSA Rev. Fac. Ciênc. (2C) **1** 1951.

Bryotype atlantica **sp. n.** Argentina p. 172, KÖHLER Acta zool. lilloana **12** 1952.

Calophasia cucullianae, bruchi p. 177, *picta, nobilis* p. 178, *funebris, cuyana, chubutiana* p. 179 **spp. n.** Argentina, KÖHLER t.c.

Caradrina noctivaga Bell. a good sp. not f. of *flavirena* p. 29 fig., DE LAEVER Rev. franç. Lépid. **14**.

Catephia syba see *Nagia*.

Catocala lara **abb. n.** *angustata, nigrimedia* Ussuri p. 55; *puerpera* **subsp. n.** *centralasiae* Transcaspia p. 56; *artobolevskiji* **sp. n.** Bokhara p. 58; *lupina* **subsp. n.** *kastshenkoi* Transcaucasia; *proxeneta* **subsp. n.** *sutshana* p. 60; *hymenaea* **subsp. n.** *ussurica* p. 61 Ussuri figs., SHELJUZHKO Dtsch. ent. Z., Iris **57** 1944.

Chilcasa [sic] *falcata* Swinh. (= *Acygonia difformis* Rpke.) p. 365, ROEPKE Ent. Ber. **14**.

Chloroplaga javana **sp. n.** Java p. 223, ROEPKE Tijdschr. Ent. **89** 1948.

Chubutiana **gen. n.** (Cuculliinae), *nigripes* **sp. n.** Argentina p. 140, KÖHLER Acta zool. lilloana **12** 1952.

Cladocerotis ankarensis, benigna, wichgrafi, tischendorfi, libanotica see *Pachyagrotis*.

Colobochyla salicalis early stages p. 267 figs., HAGGETT Ent. Gaz. **4.**

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Conicofrontia sesamoides Hmps. (=*Phragmatiphila bipartita* H.) p. 651; *diamesa* from *Arenostola* p. 652, TAMS & BOWDEN Bull. ent. Res. **43.**—*C. mesoscia, mesophaea, scotochroa* see *Sciomesa*.

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Craniophora transversa **sp. n.** Russian Far East, Korea p. 540 figs., KOZHANCHIKOV Fn. SSSR, Ins. Lep. **12** 1950.

Criophasia multilinea, obscura p. 148, *mononacula* p. 149 **spp. n.** Argentina, KÖHLER Acta zool. lilloana **12** 1952.

Crymodes dumetorum (& subsp. *mutica*) see *Heterophysa*.

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Crypsedra niphopasta **subsp. n.** *bulgarica* Bulgaria pp. 375, 376 fig., DRYANOVSKI Bull. Inst. zool. Acad. bulg. Sci. **2.**

Cucullia some Chinese spp. pp. 28–84; *scoparioides* p. 50, *cyanorea* p. 52, *marmorea* p. 56, *humilis* p. 58, *infernalis* p. 60, *hönei* p. 62, *melli* p. 64, *draudti* p. 66, *pseudumbratica* p. 69, *sinopsis* p. 75, *eugrapha* p. 77 **spp. n.**; *santonici* **subsp. n.** *yünnanensis* p. 55 China figs., BOURSIN Dtsch. ent. Z., Iris **55** 1942.—*C. prima, glogeri* p. 163, *heinrichi, giacomellii* p. 164 **spp. n.** Argentina, KÖHLER Acta zool. lilloana **12** 1952.

Cuculluna **gen. n.** (Cuculliinae), *cristagalli* **sp. n.** Argentina p. 139, KÖHLER t.c.

Dasythorax santacrucis, incaica **spp. n.** Argentina p. 180, KÖHLER t.c.

Desertullia **gen. n.** (Cuculliinae) p. 157, *argyrofulva* **sp. n.** Argentina p. 158, KÖHLER t.c.

Dimorphinoctua **gen. n.** for *Psectraglaea pilifera* Wlk. (type) p. 6; *cunhaensis* **sp. n.** Tristan da Cunha p. 9 figs., VIETTE Results Norweg. Exped. T. da Cunha 1937–1938 no. 23 1952.

Earias of Belg. Congo (key p. 207) pp. 204–208; *becqueti* **sp. n.** Belg. Congo p. 204, BERGER Rev. Zool. Bot. afr. **48.**

Eicomorpha antiqua Stgr., *koeppeni* Alph. from *Xestia* p. 67 (note), BOURSIN Z. wien. ent. Ges. **38.**

Elaphria clavipalpis **var. n.** *phaeophoba* Austria p. 13 figs., SCHAWERDA Dtsch. ent. Z., Iris **55** 1942.

Empusada differens p. 165, *rectilinea* p. 166 **spp. n.** Argentina, KÖHLER Acta zool. lilloana **12** 1952.

Entomogramma falcata see *Tiruvaca subcostalis*.

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Eremochlaena **gen. n.** for *Leucochlaena orana* Lucas (type) p. 240; *oranoides* **sp. n.** Morocco p. 241 figs., BOURSIN Z. wien. ent. Ges. **38.**

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Eugnorisma miniago Frr., *enargiaris* Drdt. from *Xestia* p. 67 (note), BOURSIN Z. wien. ent. Ges. **38.**

Euxoa bogdanovi Ersch. from *Xestia* p. 70, BOURSIN Z. wien. ent. Ges. **38.**—*E. cymograpta* ♂ genitalia figured p. 6, BERIO Doriana **1** no. 34.—*E. aquilina* all stages pp. 186, 205 figs., VASIT' Trav. Acad. serbe Sci. **31** Inst. Ecol. Biogéogr. no. 4.—*E. pictifascia, arsinaria* see *Agrotis*.

Galeana **gen. n.** (Cuculliinae), *basilinea* **sp. n.** Argentina p. 150, KÖHLER Acta zool. lilloana **12** 1952.

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Graptocullia **gen. n.** (Cuculliinae) p. 143, *sagittata* **sp. n.** Argentina p. 144, KÖHLER Acta zool. lilloana **12** 1952.

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Hadena kitti Schaw. (=subsp. *silbernageli* Tyk.) p. 51, DANIEL & WOLFSBERGER NachrBl. bayer. Ent. **2.**

Hampsonia **gen. n.** for *Acronicta jankowskii* Obth. (type), *A. albonigra* Herz. p. 535, KOZHANCHIKOV Fn. SSSR, Ins. Lep. **12** 1950.

Heliothis taxonomic status of Australian spp. pp. 319–344, key p. 323 figs., COMMON Aust. J. Zool. **1.**

Heterophysa **gen. n.** for *Crymodes dumetorum* Hb.-Geyer & subsp. *mutica* Christ. p. 47 figs., BOURSIN Z. Lepid. **3.**

Hillia acronyctina **sp. n.** Argentina p. 176, KÖHLER Acta zool. lilloana **12** 1952.

Homohadena polypicta **sp. n.** Argentina p. 170, KÖHLER t.c.

Hydrillodes nubeculalis (also Java) p. 228, *subtruncata* p. 229 **spp. n.** Sumatra figs., ROEPKE Tijdschr. Ent. **89** 1948.

Hypena calligraphalis **sp. n.** Sumatra p. 230 fig., ROEPKE t.c.

Leucania (*Acantholeucania* **subgen. n.**) *loreyimima* Cochin-China, (*A.*) *pseudoloreyi* Madagascar **spp. n.** p. 139 figs., RUNGS Bull. Soc. ent. Fr. **58.**—*L. lythargyria* **ab. n.** *nigrescens* England p. 17, BEST Ent. Rec. **65.**

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Mendozania **gen. n.** (Cuculliinae), *sanmartini* **sp. n.** Argentina p. 145, KÖHLER t.c.

Metacullia **gen. n.** (Cuculliinae), *bergi* **sp. n.** Argentina p. 159, KÖHLER t.c.

Metalopha tridens **sp. n.** Argentina p. 143, KÖHLER t.c.

Metopoceras driss **sp. n.** Morocco p. 137 figs., RUNGS C.R. Soc. Sci. nat. Maroc **1952.**

Minucia lunaris early stages p. 266 figs., HAGGETT Ent. Gaz. **4.**—*M. lunaris* **ab. n.** *radiata* England p. 81 fig., COCKAYNE Ent. Rec. **65.**

Nagia syba Guén. (=*megaruna* Joan.) from *Catephia* p. 556, VIETTE Bull. Mus. Hist. nat., Paris (2) **24.**

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Neuquenia **gen. n.** (Cuculliinae), *nitida* **sp. n.** Argentina p. 144, KÖHLER Acta zool. lilloana **12** 1952.

Noctua L. validity discussed pp. 9–10, BERIO Boll. Soc. ent. ital. **82** 1952.

Nycteola revision of Palaearctic spp. pp. 145–168; *degenerana* **abb. n.** *obscura* p. 150, *clara* (also Switzerland etc.), *grisescens* p. 151 Russia; *d.* subsp. *siculana* **abb. n.** *grisescens* (also S. Tyrol, Serbia), *clara, rufosignata* (also Spain), *transversistrigata* Syria, *rufomarmorata* Italy, *costimaculana* Italy, N.W. Africa, Spain p. 154, *pseudoilicana* (also Istria), *pseudoramosana, bistrigata* Syria, *unicolor* Sicily, N.W. Africa etc. p. 155; *kuldzhana* Centr. Asia p. 159, *gandzhana* Transcaucasia p. 163 **spp. n.**; *pseudodilutana* **n. n.** for *dilutana* Hb. nec Schiff., a sp. not f. of *revayana* p. 161 figs., OBRAZTSOV Eos **29.**

Omphalophana galenoides **sp. n.** Argentina p. 169, KÖHLER Acta zool. lilloana **12** 1952.

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Pachnobia lorezi Stgr. from *Xestia* p. 70 figs., BOURSIN Z. wien. ent. Ges. **38.**

Pachyagrotis **gen. n.** for *Cladocerotis ankarensis* Rbl. (type), *benigna* Cti., *wichgrafi* Cti.-Drdt., *tischendorfi* Pglr., *libanotica* Cti.-Drdt. p. 214 figs., BOURSIN t.c.

Paracullia **gen. n.** (Cuculliinae) p. 159, *burmeisteri* (type), *oorti* **spp. n.** Argentina p. 160, KÖHLER Acta zool. lilloana **12** 1952.

Paramocis **gen. n.** (Catocalinae), *maculata* **sp. n.** Sumatra p. 225 fig., ROEPKE Tijdschr. Ent. **89** 1948.

Parosmia **gen. n.** (Cuculliinae), *simulans* **sp. n.** Argentina p. 162, KÖHLER Acta zool. lilloana **12** 1952.

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Phytometra ernestinana Blanch. (=*Xanthoptera coccinifascia* Grote) from *Nanthilda* p. 556, VIETTE Bull. Mus. Hist. nat., Paris (2) **24**.—*P. zosima* early stages p. 327, KASY Z. wien. ent. Ges. **38**.

Poenoma **gen. n.** for *Phragmatiphila serrata* Hmps. (type) p. 652; *similis* S. Nigeria, *acantha* Cameroons **spp. n.** p. 654 figs., TAMS & BOWDEN Bull. ent. Res. **43**.

Porphyrinia popovi **sp. n.** Persia p. 218 figs., WILTSHIRE Proc. R. ent. Soc. Lond. (B) **22**.

Procus versicolor, strigilis, latruncula genitalia pp. 71–75 figs., AUBERT Rev. franç. Lépid. **14**.

Psectraglaea pilifera see *Dimorphinoctua*.

Pseudocopicucullia bensi p. 368, *capazi* p. 371 **spp. n.** Sp. Morocco figs., AGENJO Eos **28** 1952.

Pseudosmia **gen. n.** (Cuculliinae), *rubescens* **sp. n.** Argentina p. 161, KÖHLER Acta zool. lilloana **12** 1952.

Pseudoxestia **gen. n.** for *Xestia apfelbecki* Rbl. p. 68 figs., BOURSIN Z. wien. ent. Ges. **38**.

Raphia obsoleta **sp. n.** Baluchistan, p. 426 fig., KOZHANCHIKOV Fn. SSSR, Ins. Lep. **12** 1950.

Rhizedra lutosa ab. *rufovenosa* see *Sedina büttnera*.

Riagria **gen. n.** (Cuculliinae), *xylinoides* **sp. n.** Argentina p. 151, KÖHLER Acta zool. lilloana **12** 1952.

Sarrothripus populana pp. 77, 87, *cuneana* pp. 78, 87 **spp. n.** Slovakia; key to spp. pp. 80, 87 figs., PATOČKA Zool. ent. Listy **2**.—*S. revayanus* **ff. n.** *fuscoramosanus, diluteramosanus, strigatanus, gloriosanus* Austria p. 285, SCHWINGENSCHUSS Z. wien. ent. Ges. **38**.—*S.* (*Sarothripa*) *musculana* see *Erschoviella*.

Schinia jaguarina egg, larva p. 70, WYATT Bull. Brooklyn ent. Soc. **48**.

Sciomesa **gen. n.** for *Conicofrontia mesoscia* Hmps. (type), *C. mesophaea* Auriv., *C. scotochroa* Hmps. p. 648 figs., TAMS & BOWDEN Bull. ent. Res. **43**.

Sedina büttneri Her. (=*Rhizedra lutosa* ab. *rufovenosa* Sch.) p. 78, ADAMCZEWSKI Bull. ent. Pologne **20** 1951.

Sesamia and related genn. (key p. 645) revision of African spp. pp. 645–678, key to spp. p. 659, type *nonagrioides* Lef.; *botanephaga* S. Nigeria, Gold Coast, Ivory Coast, Sudan p. 662, *jansei* S. Africa p. 666, *poephaga* Gold Coast, Tanganyika, Madagascar etc. p. 668, *penniseti* Gold Coast p. 669, *poebora* Uganda p. 670, *oriaula* p. 677 Uganda **spp. n.**; *albivena* **subspp. n.** *sudanensis* Sudan, Uganda, Nigeria, Cameroons p. 673, *mocoënsis* Port. E. Africa p. 674; *calamistis* Hmps. (=*mediastriga* B.-B.) p. 664; *cretica* Led. (=*pecki* Tams) p. 671 figs., TAMS & BOWDEN Bull. ent. Res. **43**.—*S. calamistis, inferens* larva, pupa p. 693 figs., WILLIAMS Bull. ent. Res. **43**.

Speia **gen. n.** for *Phalaena vuteria* Stoll p. 647 figs., TAMS & BOWDEN Bull. ent. Res. **43**.

Subacronicta **gen. n.** for *Acronicta megacephala* Schiff. (type), *A. centralis* Ersch., *A. grumi* Alph., *A. concerpta* Drd., *A. superans* Gn. p. 456 figs., KOZHANCHIKOV Fn. SSSR, Ins. Lep. **12** 1950.

Subleuconycta **gen. n.** for *Leuconycta palschkovi* Fil. p. 447 fig., KOZHANCHIKOV t.c.

Tarache mekkii **sp. n.** Oran p. 16 figs., RUNGS C.R. Soc. Sci. nat. Maroc **1953.**

Tarsicopia **gen. n.** (Cuculliinae), *robusta* **sp. n.** Argentina p. 158, KÖHLER Acta zool. lilloana **12** 1952.

Timora zernytamsia, turtur, rhodomelaleuca ♂ genitalia figured p. 1; *lancea* **sp. n.** Ethiopia p. 2 figs., BERIO Doriana **1** no. 34.

Tiruvaca subcostalis Wlk. (=*Entomogramma falcata* Pag.) p. 364, ROEPKE Ent. Ber. **14.**

Tortriciforma viridissima **sp. n.** Sumatra p. 223 fig., ROEPKE Tijdschr. Ent. **89** 1948.

Valeria mamestrina **sp. n.** Argentina p. 173, KÖHLER Acta zool. lilloana **12** 1952.

Velazconia **gen. n.** (Cuculliinae), *difficilis* (with **var. n.** *trinubila*) **sp. n.** Argentina p. 146, KÖHLER t.c.

Xanthia lutea **f. n.** *stupenda* Austria p. 219, SCHWINGENSCHUSS Z. wien. ent. Ges. **38.**

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Xanthoptera coccinifascia see *Phytometra ernestinana.*

Xestia apfelbecki see *Pseudoxestia*; *ochreago, brunneago, effundens, xestiodes, fuscisignata* see *Amathes*; *bogdanovi* see *Euxoa*; *lorezi* see *Pachnobia*; *miniago, enargiaris* see *Eugnorisma*; *antiqua, koeppeni* see *Eicomorpha.*

Xylophasia patagonica see *Brachygalea.*

LYMANTRIIDAE.

Notes on African Lymantriidae, COLLENETTE Ann. Mag. nat. Hist. (12) **6**: 561–578, 25 figs.

New and little known Indonesian Lymantriidae, COLLENETTE Treubia **22**: 225–232, 19 figs.

Aclonophlebia flavinotata Butl. (=*rufotincta* Her.); *macarthuri* p. 574, *pinheyi* Kenya, *baliocosma* Belg. Congo, Uganda p. 575 **spp. n.** figs., COLLENETTE Ann. Mag. nat. Hist. (12) **6.**—*A. misrachii* see *Polymona rufifemur ellisoni.*

Aroa eugonia **sp. n.** Ivory Coast p. 570 figs., COLLENETTE Ann. Mag. nat. Hist. (12) **6.**

Cifuna biundulans see *Rhypotoses ruptata.*

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Palasea list of African spp.; *metella* Fawc., *pruinosa* Her., *melia* Fawc. (=*L. menecles* Fawc.), *hemipyra* Coll., *arete* Fawc., *gondona* Swinh. (=*L. melete* Fawc., *taurina* Her.), *flavicilia* Hmps., *melissa* Fawc., *conspersa* Her. from *Lymantria*; *melia* **subsp. n.** *jacksoni* Uganda p. 576, COLLENETTE Ann. Mag. nat. Hist. (12) **6.**

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PYRALIDAE.

New classification of Pyraustidae, MARION Rev. franç. Lépid. **14**: 53–59.

Morphological characters of larvae of Japanese Pyraustinae, MUTUURA 1952 Bull. Naniwa Univ. (B) **2**: 25–34, 33 figs.

Actenia vidualis Chrét. (=*Pyralis mariaeludovicae* Lucas) p. 556, VIETTE Bull. Mus. Hist. nat., Paris (2) **24.**

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pallidellus Dup. (= *cuencalis* Hmps.) p. 321 figs., AGENJO Eos **28** 1952.—*C. deliellus* **ab. n.** *asneri* Herkulesbad p. 116 figs., SZENT-IVÁNY Dtsch. ent. Z., Iris **55** 1942.

Crocidolomia binotalis characters p. 347, larva p. 348 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

Diatraea amnemonella, amazonica, rufescens see *Eodiatraea* ; *canella* see *E. centrellus*.

Dichocrocis catalalis p. 208, *alluaudalis* p. 209 **spp. n.** Madagascar figs., VIETTE Bull. mens. Soc. linn. Lyon **22**.

Dioryctria disclusa **sp. n.** (HEINRICH) U.S.A. p. 495 ; egg p. 496, larva p. 497 figs., FARRIER & TAUBER Iowa St. Coll. J. Sci. **27**.

Entephria vohilavalis **sp. n.** Madagascar p. 485, VIETTE Bull. Mus. Hist. nat., Paris (2) **25**.

Eodiatraea **gen. n.** for *Chilo centrellus* Mösch. (= *Diatraea canella* Hmps.) (type), *D. amnemonella* Dyar, *D. amazonica* Box, *D. rufescens* Box p. 178, Box Proc. R. ent. Soc. Lond. (B) **22**.

Etiella zinckenella early stages, genitalia p. 22 figs., MILLER & ŘEZÁČ Zool. ent. Listy **2**.

Haplosindris **gen. n.** for *Sindris leucotriangula* Mabille p. 205 fig., VIETTE Bull. mens. Soc. linn. Lyon **22**.

Hellula rogatalis Hlst., *undalis* F. characters, identities discussed p. 46 figs., CAPPS Bull. S. Calif. Acad. Sci. **52**.

Heterographis calaritanella **sp. n.** Sardinia p. 101 figs., AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.

Homoeosoma nimbella Dup. identity discussed p. 123, MARION Entomologiste **8** 1952.

Hyaloplaga ankarampotsyalis **sp. n.** Madagascar p. 486, VIETTE Bull. Mus. Hist. nat., Paris (2) **25**.

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Metasia (*Clasperia* **subgen. n.**) *ophialis* **subsp. n.** *sardinica* Sardinia p. 59, HARTIG in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.

Mussidia decaryalis **sp. n.** Madagascar p. 208, VIETTE Bull. mens. Soc. linn. Lyon **22**.

Neopaschia nigromarginata **sp. n.** Madagascar p. 130 figs., VIETTE Rev. franç. Ent. **20**.

Nephopteryx alpigenella persica see *Salebria albariella dilucida*.

Nhoabe **gen. n.** (Pyralinae) p. 130, *mocquerysalis* (type), *millotalis* **spp. n.** Madagascar p. 131 figs., VIETTE Bull. Soc. ent. Fr. **58**.

Oeobia undalis characters p. 350, larva p. 351 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

Orobena fulgura Le Cerf (= *Pionea jeannelalis* Lucas) p. 556, VIETTE Bull. Mus. Hist. nat., Paris (2) **24**.

Pediasia study of European spp. of *fascelinella* group pp. 140–169 ; *adamczewskii* Ural, *sareptella* p. 150, *hübneri* p. 154, *soffneri* p. 155 Russia **spp. n.** figs., BŁESZYŃSKI Bull. ent. Pologne **22** 1952.

Pempelia fraternella Rag. a subsp. of *ornatella* Schiff. p. 224, AMSEL Rev. franç. Ent. **20.**

Pionea rubiginalis **f. n.** *denigratalis* Sardinia p. 62, HARTIG in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.—*P. jeannelalis* see *Orobena fulgura.*

Polygrammodes faraonyalis **sp. n.** Madagascar p. 485, VIETTE Bull. Mus. Hist. nat., Paris (2) **25.**—*P. seyrigalis* **sp. n.** Madagascar p. 135 figs., VIETTE Rev. franç. Ent. **20.**

Proceras sacchariphagus, indicus larva, pupa p. 696 figs., WILLIAMS Bull. ent. Res. **43.**

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Salebria neftaella Luc. (=*Brephia tortilisella* Dmt.) p. 225; *albariella dilucida* Stgr. (=*Nephopteryx alpigenella persica* Osth.) p. 226; *fasciculatella, tahlaella* ♂ genitalia p. 229 figs., AMSEL Rev. franç. Ent. **20.**—*S. venustella* (*quartella*) see *Asalebria.*

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Synaphe mediatlantis **sp. n.** Morocco p. 71, RUNGS C.R. Soc. Sci. nat. Maroc **1953.**

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Copaxa subocellata notes on larva p. 15, Paulian Mém. Inst. sci. Madagascar, (E) **3.**

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Dirphia (*Namuncuraia* Orfila a subgen. p. 10), Michener J. Kans. ent. Soc. **26.**—*D. dalcyra* **sp. n.** Brazil p. 381 figs., Oiticica Filho Rev. brasil. Biol. **13.**

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Imbrasia paradoxa **sp. n.** Belg. Congo p. 250, Dufrane Bull. mens. Soc. linn. Lyon **22.**

Lobobunaea phaedusa **f. n.** *alberici* Belg. Congo p 251, Dufrane Bull. mens. Soc. linn. Lyon **22.**

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Trabala spp. in Paris Museum p. 3, ROEPKE Rev. franç. Lépid. **14.**

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Pogonozada see *Pseudogalleria*; *distorta* see *Cryptophlebia*.

Polychrosis sambuci **sp. n.** Illinois p. 228 figs., CLARKE J. Wash. Acad. Sci. **43.**—*P. vitisana* Jacq. (=*botrana* Den. & Schiff. nom. nud.) p. 379, PACLT Ent. Ber. **14.**—A subgen. of *Lobesia*, q.v.

Pseudogalleria Rag. (=*Cryptophlebia* Wals., *Pogonozada* Hmps.) p. 156; *toxotis* p. 158, *amethystina* p. 159 **spp. n.** New Guinea figs., DIAKONOFF Verh. Akad. Wet., Amst. (2) **49** no. 3.

Sereda myodes **sp. n.** New Guinea p. 164 figs., DIAKONOFF t.c.

Spilonota key to Papuan spp.; *selene* p. 149, *pyrochlora* p. 151, *lobata* p. 152, *allodapa* p. 153 **spp. n.** New Guinea figs., DIAKONOFF t.c.

COSMOPTERYGIDAE.

Pyroderces similis **sp. n.** Fiji p. 112 figs., BRADLEY Proc. Hawaii. ent. Soc. **15.**

Stagmatophora cyma **sp. n.** Fiji p. 112 figs., BRADLEY t.c.—*S. vinsoni* **sp. n.** Mauritius p. 138 fig., VIETTE Bull. Soc. zool. Fr. **78.**

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Aristotelia perplexa early stages p. 510 figs., BOURQUIN Acta zool. lilloana **12** 1952.—*A.* (*Xystophora*) *niphognatha* **sp. n.** Hungary pp. 390, 485 fig., GOZMÁNY in SZÉKESSY Bátorliget élövilága.—*A. straussiella* **sp. n.** Hawaii p. 23, SWEZEY Proc. Hawaii. ent. Soc. **15.**

Aroga bispiculata Meyr., *speculifera* M., *trachycosma* M., *xyloglypta* M. from *Gelechia* p. 317, CLARKE J. Wash. Acad. Sci. **43.**

Bryotropha saralella p. 115, *pallorella* p. 117, *mulinoides* p. 118, *gallurella* p. 119 Sardinia, *arabica* Palestine, Mesopotamia p. 120 **spp. n.** figs., AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.—*B. zannonicola* **sp. n.** Zannone I. p. 68 fig., HARTIG Boll. Soc. ent. ital. **83.**

Chionodes agriodes Meyr., *clistrodoma* M., *consona* M., *dryobathra* M., *eburata* M., *halycopa* M., *icriodes* M., *lacticoma* M., *litigiosa* M., *perissosema* M. from *Gelechia* p. 318, CLARKE J. Wash. Acad. Sci. **43.**

Darlia praetexta pupa p. 517 figs., BOURQUIN Acta zool. lilloana **12** 1952.

Filatima asbolodes Meyr. p. 318, *collinearis* M., *isocrossa* M. (= *virgea* Clarke), *nucifer* Walsh. from *Gelechia*; *monopa* M. (= *G. epigypsa* M.); *tephrinopa* M. from *Nothris* p. 319, CLARKE J. Wash. Acad. Sci. **43.**

Gelechia gracula Meyr. (=*Nothris diaconalis* M.) from *N.*; *bianulella* Chamb. (=*Nothris melanchlora* M.) p. 319; *mundata* M., *thymiata* M. from *Nothris* p. 320, CLARKE t.c.—*G. rhombella* **ab. n.** *cinereoradicica* Hungary p. 120 figs., SZENT-IVÁNY Dtsch. ent. Z., Iris **55** 1942.—*G. agriodes, clistrodoma, consona, dryobathra, eburata, halycopa, icriodes, lacticoma, litigiosa, perissosema* see *Chionodes*; *asbolodes, collinearis, isocrossa, nucifer, epigypsa* see *Filatima*; *bispiculata, speculifera, trachycosma, xyloglypta* see *Aroga*.

Gnorimoschema revision of European spp. living on Caryophyllaceae, pt. 1, *leucomelanellum* group pp. 225–239, 275–282, 311–319; *leucothoracellum* Austria p. 233, *fiorii* Italy p. 277 **spp. n.**; *saginellum* Z. (=*coussonellum* Chrét.) p. 276; *improvisellum* further description p. 235 figs., KLIMESCH Z. wien. ent. Ges. **38.**—*G. hispanicella* **n. n.** for *amaurella* Rebel nec Hering p. 274, AMSEL Z. wien. ent. Ges. **38.**

Lita thurneri **sp. n.** Julian Alps p. 180 figs., PINKER Z. wien. ent. Ges. **38.**

Metzneria carlinella Stt. (=*selaginella* Mn.) p. 80, AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.—*M. zimmermanni* **sp. n.** Moravia p. 33 figs., HERING Dtsch. ent. Z., Iris **54** 1941.

Myconita lipara **sp. n.** Fiji p. 110 fig., BRADLEY Proc. Hawaii. ent. Soc. **15.**

Nothris gracula (*diaconalis*), *mundata, thymiata* see *Gelechia*; *melanchlora* see *G. bianulella*; *tephrinopa* see *Filatima*.

Oecogonia fasciata Stt. (=*Oecophora proteocliva* Meyr.) p. 88, HARTIG in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.

Parastega hemisigna early stages p. 511 figs., BOURQUIN Acta zool. lilloana **12** 1952.

Phthorimaea suaedivorella Chrét. good sp. not subsp. of *suaedella* Rich. p. 85; *börneri* p. 123, *flavidorsella* p. 125, *halymiphaga* p. 127, *calaritanella* p. 128 **spp. n.** Sardinia figs., AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.

Rhinosia zernyi **sp. n.** Yugoslavia p. 120; *sordidella* **ab. n.** *uhrikmészárosi* Centr. S. Europe p. 123 figs., SZENT-IVÁNY Dtsch. ent. Z., Iris **55** 1942.

Schützeia serratella **sp. n.** Sardinia p. 114 figs., AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.

Symmoca solanella **sp. n.** Morocco p. 1448 figs., AMSEL Bull. Inst. franç. Afr. noire **15.**

Thiognatha mameti **sp. n.** Mauritius p. 140 fig., VIETTE Bull. Soc. zool. Fr. **78.**

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Agonopteryx key to spp. based on male copulatory organ p. 275; *senecionis* Nick. (=*sarracenella* Rössl.) p. 290; *probella* Afghanistan, *canuflavella* p. 292, *invenustella* p. 293 Algeria, *klimeschi* Austria p. 296 **spp. n.** figs., HANNEMANN Mitt. zool. Mus. Berl. **29.**

Borkhausenia luctuosella sardiniella Ams., *l. augustella* Hb. distinguishing characters p. 129, AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.

Casmara diabolella **sp. n.** Malaya p. 319 fig., BRADLEY Ann. Mag. nat. Hist. (12) **6.**

Coptotelia Zell. valid gen. not syn. of *Hypercallia* Steph. p. 336; *allardi* Peru p. 338, *complicata* p. 340, *elena* p. 349 Brazil, *pecten* Guatemala p. 342, *cyathopoides* Ecuador p. 344, *perseaphaga* Costa Rica p. 345, *gioia* Bolivia p. 347, *terminalis* Mexico p. 348 **spp. n.**; *nigriplaga* Dogn. (=*prominula* Meyr.) p. 339; *calidaria* Meyr. p. 337, *colpodes* Wals. p. 341, *margaritacea* Meyr. p. 345, *byrsocyma* Meyr. p. 350 from *Hypercallia* figs., CLARKE Acta zool. lilloana **11** 1951.

Depressaria key to groups based on male copulatory organ p. 303; *krasnowodskella* Turkmenistan p. 314, *subtenebricosa* Algeria p. 315, *rungsiella* Morocco p. 317 **spp. n.**; *erinaceella* Stgr. (=*sardoniella* Rebel) p. 318 figs., HANNEMANN Mitt. zool. Mus. Berl. **29.**—*D. thapsiella* Z. (=*amanthicella* Hein.) p. 113 figs., AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.—*D.* (*Schistodepressaria*) *cervicella* larva p. 22; pupa p. 24 figs., KLIMESCH Z. wien. ent. Ges. **38.**—*D. hepatariella* see *Levipalpus*; *dictamnella, hystricellus* see *Horridopalpus.*

Horridopalpus **gen. n.** for *Depressaria dictamnella* Treit. (type), *hystricellus* Mösch. p. 320 figs., HANNEMANN Mitt. zool. Mus. Berl. **29.**

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Levipalpus **gen. n.** for *Depressaria hepatariella* Zell. p. 297 figs., HANNEMANN Mitt. zool. Mus. Berl. **29.**

Martyrhilda key to spp. based on male copulatory organ p. 298; *ciniflonella* Z. (=*smolandiae* Palm) p. 299; *sutschanensis* **sp.n.** Afghanistan, Ussuri p. 300 figs., HANNEMANN t.c.

Oecophora proteocliva see *Oecogonia fasciata* (Gelechiidae).

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Pleurota grisea **sp. n.** Sardinia p. 112 figs., AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.

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GLYPHIPTERYGIDAE.

Antispastis clarkei **sp. n.** Argentina p. 520 figs., PASTRANA Acta zool. lilloana **12** 1952.—*A. clarkei* early stages p. 524 figs., BOURQUIN Acta zool. lilloana **12** 1952.

Choreutis batangensis **sp. n.** China p. 119, CARADJA Dtsch. ent. Z., Iris **53** 1940.

Hilarographa jonesi **sp. n.** U.S.A. p. 96 figs., BROWER Ann. ent. Soc. Amer. **46.**

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Eidophasia messingiella f. *dorsana* Caradja (=*m.* f. *dorsomaculata* Doets) p. 50, AMSEL Z. Lepid. **3.**

Plutella maculipennis characters p. 351, larva p. 352 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

Yponomeuta padella, *malinellus* status discussed p. 132, VIETTE Entomologiste **8** 1952.

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Synanthedon guatemalena **subsp. n.** *melini* Guatemala, Peru; *romani* p. 262, *nannion* p. 263 **spp. n.** Amazonas, BRYK t.c.

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Bedellia ipomoeae **sp. n.** Fiji p. 114 figs., BRADLEY Proc. Hawaii. ent. Soc. **15.**

Phyllocnistis labyrinthella early stages p. 106 figs., SUNDBY Nytt Mag. Zool. **1.**

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Tischeria rosella **sp. n.** Centr. Asia p. 280 figs., GERASIMOV Fn. USSR, Insects: Lepidoptera **1** no. 2 1952.

GRACILLARIIDAE.

Lithocolletis cerrutiella **sp. n.** Italy p. 17 figs., HARTIG Boll. Ass. romana Ent. **7** 1952.—*L. cytisus* **sp. n.** Sardinia p. 133 figs., AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.—*L. quercifoliella* **subsp. n.** *cerris* Czechoslovakia p. 42; key to *Quercus*-mining spp. p. 44 figs., GREGOR Zool. ent. Listy **1** 1952.—*L. platani* all stages pp. 173–222 figs., PRINCIPI Boll. Ist. Ent. Univ. Bologna **19.**

Porphyrosela sp. early stages p. 514, BOURQUIN Acta zool. lilloana **12** 1952.

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Gallura **gen. n.**, *tirsella* **sp. n.** Sardinia p. 135, AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.

Microscardia **gen. n.** for *Scardia boleti* F. p. 139 figs., AMSEL in HARTIG & AMSEL t.c.

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Neurothaumasia ankerella Mann (=*burdigalensis* Le Md.) from *Tinea* p. 41 figs., LE MARCHAND Rev. franç. Lépid. **14.**

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Scardia boleti see *Microscardia*; *tessulatella* see *Montescardia*.

Tinea revision of *granella* group (key p. 593) pp. 577–600 figs., PETERSEN Beitr. Ent. **3.**—*T. manni* **sp. n.** locality unknown p. 45 figs., LE MARCHAND Rev. franç. Lépid. **14.** —*T. bothniella* **sp. n.** Sweden p. 225, SVENSSON Opusc. ent. **18.**—*T. ankerella* see *Neurothaumasia.*

Tineiforma **gen. n.**, *sardica* **sp. n.** Sardinia p. 134 figs., AMSEL in HARTIG & AMSEL Fragm. ent., Rome **1** 1952.

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Trifurcula characters p. 161, review of European spp. pp. 164–170 ; *maxima* Germany p. 167, *orientella* Germany, Austria, Dalmatia p. 168 **spp. n.**, figs., KLIMESCH Z. wien. ent. Ges. **38.**

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Gazorycta fuscoargenteus Bang-Haas from *Hepialus* p. 34, VIETTE Lambillionea **53.**

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Neohepialiscus algeriensis Joann. (=*Hepialus tunetanus* Oberthür, *Hepialiscus algeriensis* ab. *bicolor* Pfitzner) p. 34, VIETTE Lambillionea **53.**

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TRICHOPTERA.

Trichoptera of Côte-d'Or, France, BITSCH Bull. Soc. ent. Fr. **58** : 25–28.

Larvae of British Trichoptera, nos. 35–40, HICKIN Proc. R. ent. Soc. Lond. (A) **28** : 36–38, 3 figs., etc.

List of Trichoptera of Mt. Ishizuchi & Omogo Valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl. : 37–38, figs.

Trichoptera of Miss Cheesman's expedition to New Caledonia, 1949, KIMMINS Ann. Mag. nat. Hist. (12) **6** : 247–257, 20 figs.

Caddis flies of Jersey, LE QUESNE 1947 Bull. Soc. jersiaise **14** : 324–328.

Trichoptera of Marche, Umbria and Abruzzi, Italy, MORETTI 1952 Boll. Zool. **19** : 245–269.

Check list of New Hampshire Trichoptera, MORSE & BLICKLE Ent. News **64** : 68–73, 97–102.

Trichoptera of Australia and New Zealand, MOSELY & KIMMINS [6] & 550 pp. 364 figs.

Additions to catalogue of Swedish Trichoptera, TJEDER Opusc. ent. **18** : 72–74.

RHYACOPHILIDAE.

Key to World Hydrobiosini, ROSS & KING 1952 Acta zool. lilloana **12** : 502–503.

Achorema see *Apsilochorema.*

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Atopsaura **subgen. n.** (type *hamata* Ross & King) see *Atopsyche.*

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Atopsychodes see *Atopsyche.*

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Bachorema **gen. n.** p. 493, *obliqua* (type), *gisba* **spp. n.** Australia p. 494 figs., MOSELY in MOSELY & KIMMINS t.c.

Cailloma **gen. n.**, *brunosa* **sp. n.** Peru p. 507 figs., ROSS & KING Acta zool. lilloana **12** 1952.

Glossosoma taeniatum, *sellatum*, *aveleta* **spp. n.** China p. 8 figs., ROSS & HWANG Proc. ent. Soc. Wash. **55.**

Hydrobiosis gollanis p. 408, *soror* p. 421 **spp. n.** New Zealand figs., MOSELY in MOSELY & KIMMINS Trichopt. Aust. & N.Z.—*H. stigma* see *Ulmerochorema.*

Iguazu **gen. n.**, *ulmeri* **sp. n.** Argentina p. 505 figs., ROSS & KING Acta zool. lilloana **12** 1952.

Notiobiosis Banks (=*Percivalia* McFarl.) p. 444 figs., MOSELY in MOSELY & KIMMINS Trichopt. Aust. & N.Z.—*N.* see *Taschorema.*

Percivalia see *Notiobiosis.*

Philopotamus mexicana see *Atopsyche.*

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Tinodes unicolor larva p. 36 figs., HICKIN Proc. R. ent. Soc. Lond. (A) **28.**

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Dipseudopsis subfurcata **sp. n.** E. Congo p. 60 figs., MARLIER Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **21.**

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Plectrocnemia australica genitalia p. 354; *maclachlani* **sp. n.** (MOSELY) New Zealand p. 355 figs., MOSELY & KIMMINS t.c.

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Protodipseudopsis congolana early stages p. 54 figs., MARLIER Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **21.**

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Caledopsyche **gen. n.**, *cheesmanae* **sp. n.** New Caledonia p. 251 figs., KIMMINS Ann. Mag. nat. Hist. (12) **6.**

Diplectrona rossi Queensland p. 340 (note) (KIMMINS), *zealandensis* (MOSELY) New Zealand p. 340, *satana* (M.) p. 342, *bourina* (M.) p. 345 Australia, *castanea* (K.) Tasmania p. 342, *bifurcata* (K.) p. 344, *cognata* (K.) p. 347 Australia **spp. n.** figs., MOSELY & KIMMINS Trichopt. Aust. & N.Z.

Hydropsyche tepoka **sp. n.** New Zealand p. 320 fig., MOSELY in MOSELY & KIMMINS t.c.—*H. instabilis* larva p. 17, pupa p. 19 figs., PHILIPSON Proc. R. ent. Soc. Lond. (A) **28.**

Macronemum Pict. status discussed p. 307 (KIMMINS); *banksi* **n. n.** (MOSELY) for *tristis* Banks nec *triste* Nav. p. 312, MOSELY & KIMMINS Trichopt. Aust. & N.Z.

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Hydroptila losida **sp. n.** Australia p. 505 figs., MOSELY in MOSELY & KIMMINS Trichopt. Aust. & N.Z.

Stactobia notes on European spp. p. 285, VAILLANT Bull. Soc. zool. Fr. **77.**

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Phryganea varia larva p. 39 figs., HICKIN Proc. R. ent. Soc. Lond. (A) **28.**

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Plectrotarsidae **fam. n.** p. 20, MOSELY in MOSELY & KIMMINS Trichopt. Aust. & N.Z.

Plectrotarsus minor **sp. n.** W. Australia p. 26 fig., MOSELY in MOSELY & KIMMINS t.c.

LIMNEPHILIDAE.

Contribution to the study of Apataniinae, I, SCHMID Tijdschr. Ent. **96**: 109–167, 35 figs.

Apatania Kol. (=*Archapatania* Mart., *Apatelia* Wall., *Apatidea* McL., *Parapatania* Forss., *Gynapatania* Forss.) p. 146; *crassa* **sp. n.** Japan p. 166 figs., SCHMID Tijdschr. Ent. **96.**—*A. bulbosa, elongata* see *Apataniana.*

Apataniana bulbosa Mart., *elongata* McL. from *Apatania* p. 146, SCHMID Tijdschr. Ent. **96.**

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Apatidea see *Apatania.*

Archaeophylax **gen. n.** (KIMMINS), *ochreus* **sp. n.** (MOSELY) Tasmania, New South Wales p. 27 figs., MOSELY & KIMMINS Trichopt. Aust. & N.Z.

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Baicalina see *Radema.*

Baicalinella see *Radema.*

Baicalodes see *Radema.*

Carpathopsyche **gen. n.**, *lateroproducta* **sp. n.** Carpathians p. 1, early stages p. 4 figs., BOTOŞĂNEANU Acta Soc. zool. bohemoslov. **16** 1952.

Cryptochia furcata **sp. n.** Montana p. 166 figs., DENNING Pan-Pacif. Ent. **29.**

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Imania chama **sp. n.** Wyoming p. 168 figs., DENNING Pan-Pacif. Ent. **29.**

Micropterna sequax larva p. 163 figs., HICKIN Proc. R. ent. Soc. Lond. (A) **28.**

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Radema Hag. (=*Baicalina* Mart., *Baicalinella* Mart., *Baicalodes* Mart.) p. 125; *angarica* **sp. n.** Tanchoi p. 127 figs., SCHMID Tijdschr. Ent. **96.** —*R. tavala* **sp. n.** Oregon p. 169 figs., DENNING Pan-Pacif. Ent. **29.**

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Setodes tineiformis larva p. 74 figs., HICKIN Proc. R. ent. Soc. Lond. (A) **28.**

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Dyschimus furcifer **sp. n.** E. Congo p. 40 figs., MARLIER Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **21.**

Goerodes brieni p. 11, *brachycera* p. 17, *angulata* p. 21, *vittata* p. 24, *vicina* p. 26, *mirabilis* p. 28, *luberoensis*, *subangulata*, *mioshi* p. 33, *kivuensis* p. 35, *sylvatica* p. 36 **spp. n.** E. Congo; key to African spp. p. 37 figs., MARLIER t.c.

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Oeconesus zelandensis, similis p. 103, *incisus* p. 104 **spp. n.** New Zealand figs., MOSELY in MOSELY & KIMMINS Trichopt. Aust. & N.Z.

Pisulia hirta **sp. n.** E. Congo p. 46 figs., MARLIER Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **21.**

Pseudoeconesus squamosus, hudsoni p. 112, *karoriensis* p. 116 **spp. n.** New Zealand figs., MOSELY in MOSELY & KIMMINS Trichopt. Aust. & N.Z.

Pycnocentria forcipata **sp. n.** New Zealand p. 38 fig., MOSELY in MOSELY & KIMMINS t.c.

Pycnocentrodes aureola McL. (= *pulchella* Tilly.) p. 81 figs., MOSELY in MOSELY & KIMMINS t.c.

Tasimia natasia (MOSELY) p. 123, *serrata* (KIMMINS) p. 125 **spp. n.** New South Wales figs., MOSELY & KIMMINS t.c.

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MEGALOPTERA.

Chauliodes disjunctus see *Dysmicohermes.*

Dysmicohermes **gen. n.** for *Chauliodes disjunctus* Walk. p. 191 figs., MUNROE Canad. Ent. **85.**

Protochauliodes correction to 1951 paper, *spenceri* **sp. n.** Canada p. 190 figs., MUNROE t.c.

NEUROPTERA.

Neuroptera of the flood area of the Niger, FRASER Bull. Inst. franç. Afr. noire **15** : 1524–1528, 1 fig.

List of Neuroptera of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl. : 39–40, figs.

Neuroptera of Miss Cheesman's expedition to New Caledonia, 1949, KIMMINS Ann. Mag. nat. Hist. (12) **6** : 245–247, 1 fig.

Neuroptera of Mt. Ishizuchi & Omogo valley, Japan, KUWAYAMA Trans. Shikoku ent. Soc. **3** : 177–180, 1 fig.

Neuroptera of Jersey, LE QUESNE 1948 Bull. Soc. jersiaise **14** : 427–429.

Faunistic notes on Swedish Neuroptera, TJEDER Opusc. ent. **18** : 227–228.

Additions to catalogue of Swedish Neuroptera, TJEDER Opusc. ent. **18** : 71.

MYRMELEONIDAE.

Furgella **gen. n.** p. 277, *intermedia* **sp. n.** S.W. Africa p. 278 figs., MARKL Mitt. schweiz. ent. Ges. **26.**

OSMYLIDAE.

Climacia californica **sp. n.** California p. 183 figs., CHANDLER J. Wash. Acad. Sci. **43.**

Osmylus shikokuensis **sp. n.** Shikoku p. 178 fig., KUWAYAMA Trans. Shikoku ent. Soc. **3.**

CONIOPTERYGIDAE.

Coniocompsa zimmermani **sp. n.** Hawaii p. 37 figs., KIMMINS Proc. Hawaii. ent. Soc. **15.**

Coniopteryx pembertoni **sp. n.** Hawaii p. 37 figs., KIMMINS t.c.

CHRYSOPIDAE.

Synthochrysa cognata **sp. n.** New Hebrides p. 246 figs., KIMMINS Ann. Mag. nat. Hist. (12) **6.**

MECOPTERA.

Mecoptera of flood area of the Niger, FRASER Bull. Inst. franç. Afr. noire **15** : 1528.

List of Mecoptera of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl. : 38–39, figs.

Mecoptera of Jersey, LE QUESNE 1948 Bull. Soc. jersiaise **14** : 429.

Additions to catalogue of Swedish Mecoptera, TJEDER Opusc. ent. **18** : 71.

Brachypanorpa montana Carp. valid sp. not syn. of *oregonensis* p. 35 figs., CARPENTER Psyche **60.**

DIPTERA.

Some Nematocera of Alsace, CALLOT 1950 Bull. Ass. philom. Als. Lorr. **9** : 39–40, 1951 : 72–73.

Preliminary study of Diptera of Quebec, CHAGNON 1952 Contr. Inst. Biol. Univ. Montréal no. 32 : 1–36, 24 figs.

Value of male genitalia of Diptera in systematics, VAN EMDEN Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 22–26.

Diptera of the Antipodes and Bounty Is., HARRISON Trans. roy. Soc. N.Z. **81** : 269–282, 15 figs.

List of flies of medical importance from Korea, Manchuria and N. China, HORI 1952 Oyo-Dobuts.-Zasshi **17** : 77–82.

List of Diptera of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl. : 47–54, figs.

Additions to Diptera of Morocco, SÉGUY Encycl. ent. (B) II Dipt. **11** : 77–92.

Diptera of Réserve du Nimba, Fr. Guinea, SÉGUY 1952 Mém. Inst. franç. Afr. noire no. 19 : 151–164.

Suggested classification of lower Brachycera, STEYSKAL Ann. ent. Soc. Amer. **46** : 237–242, 1 fig.

Synanthropic flies (key p. 16), SUKHOVA 1952 Pom. med. Rabot. no. 3 : 1–60, 17 figs.

CECIDOMYIIDAE (ITONIDIDAE).

Biological approach to species problem in gall midges BARNES Ann. ent. fenn. **19** : 1–25.

Californian Itonididae (keys p. 125), PRITCHARD Bull. Calif. Ins. Surv. **2** : 125–150, 1 pl.

Anarete manii **sp. n.** India p. 307 figs., RAO Rec. Indian Mus. **50.**

Asphondylia beguni **sp. n.** India p. 119 ; *capsici* further description p. 121 figs., MANI Indian J. Ent. **15.**—*A. ilicicola* **sp. n.** U.S.A. p. 197 figs., FOOTE Ent. News **64.**—*A. capsici* characters p. 178 figs., FRANSSEN, NIJVELDT & TJOA TJIEN MO Tijdschr. PlZiekt. **59.**

Camptodiplosis auriculariae **sp. n.** England p. 197 figs., BUXTON & BARNES Proc. R. ent. Soc. Lond. (B) **22.**

Campylomyza toxicodendri see *Tetraxyphus.*

Cecidomyia flosculorum see *Dasyneura leguminicola* ; *impatientis* see *Lasioptera* ; *boerhaaviaefoliae* see *Punarnavomyia.*

Charidiplosis indica **sp. n.** India p. 312 figs., RAO Rec. Indian Mus. **50.**

Cleodiplosis koebeli Felt from *Silvestrina* p. 145, PRITCHARD Bull. Calif. Ins. Surv. **2.**

Contarinia nasturtii characters p. 272 figs., HORNIG Z. angew. Ent. **35.**

Dasyneura (*Perrisia*) *mali* all stages p. 201 figs., CRISTOBAL Rev. Fac. Agron. **29.**—*D.* (*Dasineura*) *leguminicola* Lint. (=*Cecidomyia flosculorum* Kieff.) p. 129 ; *gentneri* **sp. n.** U.S.A. p. 131 figs., PRITCHARD Pan-Pacif. Ent. **29.**

Diplodontomyia deepica **sp. n.** India p. 310 figs., RAO Rec. Indian Mus. **50.**

Giraudiella incurvans **sp. n.** Holland p. 282 figs., NIJVELDT Ent. Ber., Amst. **14.**

Haplusiella indica **sp. n.** India p. 309 figs., RAO Rec. Indian Mus. **50.**

Lasioptera impatientis O.S. from *Cecidomyia* p. 428, adults p. 429 figs., SHINJI Annot. zool. jap. **17** 1938.

Lasiopteryx arizonensis see *Phaenolauthia.*

Lestodiplosis gracilis **sp. n.** Holland p. 284 figs., NIJVELDT Ent. Ber., Amst. **14.**

Lobopteromyia bivalviae re-description p. 260 ; *ramachandrani* **sp. n.** India p. 262 figs., MANI Agra Univ. J. Res. (Sci.) **2.**

Macrodiplosis visvanathi **sp. n.** India p. 314 figs., RAO Rec. Indian Mus. **50.**

Mayetiola revision of Italian spp. (key p. 149) pp. 98–153; *bromicola* **sp. n.** Italy p. 139 figs., ROBERTI Boll. Lab. Ent. agr. Portici **12.**

Microplecus longipalpi **sp. n.** India p. 317 figs., RAO Rec. Indian Mus. **50.**

Phaenolauthia arizonensis Felt from *Lasiopteryx* p. 142, PRITCHARD Bull. Calif. Ins. Surv. **2.**

Phegomyia tokunagai **sp. n.** Japan p. 4 figs., SASAKAWA & KOYAMA Sci. Reps Saikyo Univ., Agric. no. 4.

Punarnavomyia **gen. n.** for *Cecidomyia boerhaaviaefoliae* Mani p. 122 figs., MANI Indian J. Ent. **15.**

Schizomyia macarangae **sp. n.** India p. 131 fig., NAYAR Proc. zool. Soc. Beng. **6.**

Silvestrina koebelei see *Cleodiplosis.*

Tetraxyphus toxicodendri Felt from *Campylomyza* p. 131, PRITCHARD Bull. Calif. Ins. Surv. **2.**

Thomasia californica see *Thomasiniana.*

Thomasiniana lavandulae **sp. n.** S. France p. 125, BARNES Bull. Soc. ent. Fr. **58.**—*T. californica* Felt from *Thomasia* p. 145, PRITCHARD Bull. Calif. Ins. Surv. **2.**

MYCETOPHILIDAE (FUNGIVORIDAE).

Keroplatinae of Belgium, TOLLET Bull. Ann. Soc. ent. Belg. **89**: 179–180.

Antlemon (*Antlemonopsis* **subgen. n.**) *malmundariensis* **sp. n.** Belgium p. 180, TOLLET Bull. Ann. Soc. ent. Belg. **89.**

Antlemonopsis **subgen. n.** (type *malmundariensis* sp. n.) see *Antlemon.*

Mycetophila key p. 422; *acarensis* p. 423, *banhumai* p. 424, *curiacensis* p. 425, *duanensis* p. 426, *guaraiasi, juinensis* p. 427, *passei, shamanensis* p. 430, *tacuensis* p. 432, *uaianai* (also Costa Rica) p. 433 **spp. n.** Brazil; *stonei* **n. n.** for *edwardsi* Lane nec Lundstr. p. 431, LANE Dusenia **3** 1952.

Platyura (*P.*) *bezzii* ♀ p. 182, TOLLET Bull. Ann. Soc. ent. Belg. **89.**

Zelmira williami **sp. n.** Connecticut p. 66 fig., SHAW Psyche **60.**

SCIARIDAE (LYCORIIDAE).

Sciaridae of Iceland, FREY Ent. Medd. **26**: 457–461, 2 figs.

Review of systematic studies on Sciaridae (key to genn. p. 28), SHAW Proc. Hawaii. ent. Soc. **15**: 25–32, 1 fig.

Allopnyxia **gen. n.**, *patrizii* **sp. n.** Italy p. 21 figs., FREEMAN Boll. Soc. ent. ital. **82** 1952.

Bradysia (*B.*) *degenerans* ♂ p. 459 fig., FREY Ent. Medd. **26.**—*B. farri, bellingeri* **spp. n.** Connecticut p. 67 figs., SHAW Psyche **60.**

Epidapus johannseni **sp. n.** Connecticut p. 63 figs., SHAW t.c.

Lycoria delessei **sp. n.** Greenland p. 118, SÉGUY Encycl. ent. (B) II Dipt. **11.**

Neosciara janetscheki, biarmata, madens p. 167, *tirolensis* p. 168 **spp. n.** Alps figs., LENGERSDORF Ber. naturw.-med. Ver. Innsbruck **50.**

Pnyxia affinities discussed pp. 62–63, SHAW Psyche **60.**

Spathobdella detrita **sp. n.** Iceland p. 460 fig., FREY Ent. Medd. **26.**

BIBIONIDAE, SCATOPSIDAE.

Argentine Bibionidae (keys p. 344), HARDY 1952 Acta zool. lilloana **12**: 343–376, 14 figs.

Bibionidae of Urundi, HARDY 1952 Bull. Inst. Sci. nat. Belg. **28** no. 55: 1–2.

Bibionidae of New Zealand (key p. 513), HARDY Pacif. Sci. **7**: 513–521, 7 figs.

Bibio key to Argentine spp. p. 347; *wulpi* **n. n.** for *abbreviatus* van der Wulp nec Loew p. 349 figs., HARDY Acta zool. lilloana **12** 1952.—*B. leucopterus* early stages p. 156 figs., BRYCE Ent. mon. Mag. **89.**

Bibionellus key to spp. p. 344; *aczeli* **sp. n.** Argentina p. 345 figs., HARDY Acta zool. lilloana **12** 1952.

Cnemidoctenia see *Philia.*

Dactylodiscia see *Philia*.

Ectaetia larval characters p. 204 figs., LAURENCE Ent. mon. Mag. **89**.

Penthetria formosana **sp. n.** Formosa p. 103 figs., HARDY Rec. Indian Mus. **50**.

Philia Meig. (=*Cnemidoctenia* End., *Dactylodiscia* E., *Tridicroctena* E., *Triploctenia* E.), key to Argentine spp. p. 358; *golbachi* p. 364, *quadridens* p. 370, *serena* p. 371 **spp. n.** Argentina figs., HARDY Acta zool. lilloana **12** 1952.—*P.* key to New Zealand spp. p. 513; *harrisoni* p. 515, *tuthilli* p. 518 **spp. n.** New Zealand; *nigrostigma* Walk. (=*zealandicus* Walk.) p. 517 figs., HARDY Pacif. Sci. **7**.

Plecia key to Argentine spp. p. 350; *collaris* F. (=*discolor* van der Wulp) p. 351; *nigra* **subsp. n.** *argentina* Argentina p. 353 figs., HARDY Acta zool. lilloana **12** 1952.—*P. impostor* complex, characters p. 89, key to Oriental ♂♂ p. 90; *decepta* p. 91, *intercedens* p. 95, *neglecta* p. 97 India, *gressitti* p. 92, *septentrionalis* p. 98, *sinensis* p. 101, *yunnanica* p. 102 China, *siamensis* Siam p. 100 **spp. n.**; *pullata* **var. n.** *rubicunda* India p. 98 figs., HARDY Rec. Indian Mus. **50**.

Tridicroctena see *Philia*.

Triploctenia see *Philia*.

ANISOPODIDAE (PHRYNEIDAE, RHYPHIDAE).

Phryne fenestralis larva p. 49 figs., KEILBACH Wiss. Z. Univ. Halle **1**.

SIMULIIDAE.

Simuliidae of Ethiopian region, FREEMAN & DE MEILLON vii & 224 pp. 68 figs. frontisp.

Monograph of Simuliidae of France and N. Africa, GRENIER Encycl. ent. (A) **29**: 1–171, 268 figs.

Simuliids of Morocco, GRENIER & THÉODORIDÈS Arch. Inst. Pasteur Maroc **4**: 429–441, 3 figs.

Australasian Simuliidae, III, MACKERRAS, I. M. & M. J. 1952 Proc. Linn. Soc. N.S.W. **77**: 104–113, 25 figs.

Identification of Alaskan Simuliid larvae (key p. 264), SOMMERMAN Proc. ent. Soc. Wash. **55**: 258–273, 35 figs.

Critical and distributional notes on some Argentine Simuliids, WYGODZINSKY An. Inst. Med. reg., Tucuman **3**: 293–320, 127 figs.

Acropogon see *Simulium*.

Austrosimulium montanum **sp. n.** Australia p. 107; *victoriae* early stages p. 110 figs., MACKERRAS, I. M. & M. J. Proc. Linn. Soc. N.S.W. **77** 1952.—*A. vexans* larva p. 243 figs., DUMBLETON Trans. roy. Soc. N.Z. **81**.—*A. anthracinum* Bigot (=*Simulium moorei* Silva Figueroa), ♀ p. 293, pupa p. 295 figs., WYGODZINSKY An. Inst. Med. reg., Tucuman **3**.

Cnephia key to Ethiopian spp.; *turneri* Gibb. p. 26, *barnardi* Gibb. p. 35 from *Simulium*; *damarensis* de M. & Hardy from *Prosimulium* p. 28; *muspratti* p. 30, *harrisoni* p. 34 **spp. n.** Cape Province figs., FREEMAN & DE MEILLON Simuliidae Ethiopian Reg.—*C. blanci* **sp. n.** Morocco p. 430 figs., GRENIER & THÉODORIDÈS Arch. Inst. Pasteur Maroc **4**.—*C. stewarti* **sp. n.** California p. 45, COLEMAN Proc. ent. Soc. Wash. **55**.—*C. aguirrei* larva p. 53 figs., VARGAS & DÍAZ NÁJERA Rev. Soc. mexicana Hist. nat. **13** 1952.

Ectemnaspis macca see *Simulium bicoloratum*.

Edwardsellum squamosum, *cingulatum* see *Simulium damnosum*.

Metomphalus caffer see *Simulium medusaeforme*; *latipollex* see *S. damnosum*.

Prosimulium damarense see *Cnephia*.

Simulium classification of Ethiopian spp. pp. 38–43, keys to groups p. 43, to spp. p. 44; *alcocki* Pom. (=*kenyanum* Ség.) p. 53; *a.* var. *occidentale* **n. n.** for *a.* var. *violaceum* Pom. nec *S. violaceum* End. p. 56; *djallonense* Roub. & Gren. p. 58, *duodecimum* Gibb. p. 59 ff. of *alcocki*; *hissetteum* Gibb. (=*vargasi* Gren. & Rag.) p. 60; *johannae* Wans. (=*roubaudi* Gren. & Rag., *jadini* Fain, *akanyaruensis* Fain) p. 61; *merops* de M. (=*turneri* Gibb. (in part)) p. 70; *mcmahoni* de M. (=*altiparti-*

tum Roub. & Gren.) p. 81 ; *bequaerti* Gibb. (=*phoroniformis* de M.) p. 83 ; *harrisoni* Cape Province, N. Rhodesia p. 85, *diceros* Belg. Congo p. 123 **spp. n.**; *vangilsi* Wans. a f. of *cervicornutum* p. 90 ; *unicornutum* Pom. (=*monoceros* Roub. & Gren., *wolfsi* Wans. & Henr.) p. 92 ; *palmeri* Pom. p. 94, *pauliani* Gren. & Douc., *rotundum* Gibb. p. 95, *blacklocki* Edw. p. 96 ff. of *unicornutum* ; *nigritarsis* Coq. pp. 100, 215, *aureosimile* Pom. (=*elgonicum* Ség.) pp. 100, 216 status discussed ; *duboisi* Fain a f. of *nigritarsis* p. 103 ; *buckleyi* de M. (=*vulcani* Fain) p. 104; *fuscicorne* Fain a f. of *buckleyi* not of *vulcani* p. 106 ; *urundiensis* Fain a good sp. not var. of *adersi* p. 113 ; *neavei* Roub. (=*renauxi* Wans. & Leb.) p. 115 ; *marlieri* Gren. a f. of *copleyi* p. 128 ; *griseicolle* **ff. n.** *bifila* Anglo-Egyptian Sudan p. 137, *tridens* Gold Coast, Nyasaland ; *dentulosum* Roub. (=*emfulae* de M.) p. 138 ; *masabae* Gibb. p. 142, *rhodesiense* de M. p. 144 ff. of *dentulosum* ; *empopomae* de M. a f. of *debegene* p. 156 ; *medusaeforme* Pom. (=*Metomphalus caffer* End.) p. 175 ; *hargreavesi* Gibb. (=*elgonense* Gibb., *loangolense* Roub. & Gren.) p. 180, *africanum* Gibb. p. 183 ff. of *medusaeforme* ; *vorax* Pom. (=*limbatum* End., *lepidum* de M. p. 183, *tangae* Smart) a good sp. not syn. of *neavei* p. 184 ; *touffeum* Gibb. p. 187, *ruandae* Fain p. 189 ff. of *vorax* ; *taylori* **f. n.** *zombaensis* Nyasaland p. 194 ; *damnosum* Theo. (=*Edwardsellum squamosum* End., *E. cingulatum* End., *Metomphalus latipollex* End.) p. 210 figs., FREEMAN & DE MEILLON Simuliidae Ethiopian Reg. —*S. buckleyi* further description p. 302, pupa p. 305 ; *milloti* **sp. n.** Madagascar p. 307 ; *neireti* further description, pupa p. 313, larva p. 315 figs., GRENIER & DOUCET Mém. Inst. sci. Madagascar (A) **3** 1949.—*S.* (*Notolepria*) *incrustatum* Lutz (=*opalinifrons* End.) p. 138 ; (*Trichodagmia*) *chalcocoma* Knab (=*latitarsis* End.) ; *bicoloratum* Mall. (=*Ectemnaspis macca* End.) p. 140 ; *barbatipes* End. (=*figueroa* Smart) p. 141, ♀ genitalia p. 142 ; *nigristrigatum* End. (=*edwardsi* E.) p. 143, ♂, ♀ genitalia p. 144 ; (*Hemicnetha*) *paynei* Vargas (=*mathesoni* Vargas) p. 145 ; subgen. *Psilopelmia* (=subgen. *Lanea*) ; (*P.*) *escomeli* Roub. (=*rufidorsum* End.) p. 146 ; (*Notolepria*) *gonzalezi* **sp. n.** Mexico, Guatemala p. 235 figs., VARGAS & DÍAZ NÁJERA Rev. Inst. Salub. Enferm. trop. **13.**—*S.* Latr. (=*Acropogon* End.) p. 325 ; *paraguayense* Schrottky re-description p. 298 ; *inaequalis* Pat. & Shan. all stages p. 304 ; *huairayacu* **sp. n.** Argentina p. 310 ; *barbatipes* End. re-description p. 321 ; *antonii* **sp. n.** Bolivia p. 325 ; *bicoloratum* p. 327, *escomeli* p. 330, *riveti* p. 332, *quadrivittatum* p. 334 ♀ ♀ figs., WYGODZINSKY An. Inst. Med. reg., Tucuman **3.**—*S. amazonicum* ♀ genitalia p. 243 figs., BRISEÑO IRAGORRY, VARGAS & DÍAS NÁJERA Rev. Inst. Salub. Enferm. trop. **13.**—*S.* (*Dyarella*) *ardeni* p. 35, (*Lanea*) *jacobsi* p. 40 **spp. n.** Guatemala figs., DALMAT Ann. ent. Soc. Amer. **46.**—*S.* (*S.*) *wolcotti* **sp. n.** Porto Rico p. 138, FOX Proc. ent. Soc. Wash. **55.**—*S. bezzii* Corti (=*atlas* Séguy) p. 439 figs., GRENIER & THÉODORIDÈS Arch. Inst. Pasteur Maroc **4.**—*S.* of the Anglo-Egyptian Sudan pp. 269–286 figs., LEWIS Rev. Zool. Bot. afr. **48.**—*S. turneri*, *barnardi* see *Cnephia* ; *moorei* see *Austrosimulium anthracinum*.

BLEPHAROCERIDAE.

Blepharoceridae of Czechoslovakia, GULIČKA 1952 Biol. Sborn. slovensk. Akad. **7** no. 5–6 : 83–89.

Blepharocera williamsae p. 43, *zionensis* p. 45 U.S.A., *yankovskyi* N. Korea p. 100, *dimorphops* China p. 101, *thurmanae* Thailand p. 102 **spp.n.**, ALEXANDER Bull. Brooklyn ent. Soc. **48.**

Edwardsina luteipleura **sp. n.** Chile p. 99, ALEXANDER t.c.

Paltostoma parviceps Peru p. 46, *delectata* Costa Rica p. 47 **spp. n.**, ALEXANDER t.c.

CERATOPOGONIDAE.

Contribution to catalogue of Belgian Ceratopogonidae, GOETGHEBUER 1952 Bull. Inst. Sci. nat. Belg. **28** no. 62 : 1–3, 1 fig.

Ceratopogonidae from Costa Rica, MACFIE Beitr. Ent. **3**: 95–105, 4 figs.

Alluaudomyia bimater **sp. n.** S. Africa p. 25 fig., DE MEILLON & HARDY J. ent. Soc. S. Afr. **16**.

Atrichopogon costaricae p. 98, *didymothecae* p. 99, *lacajae* p. 100, *pachycnemus* p. 101, *utricularius* p. 102 **spp. n.** Costa Rica figs., MACFIE Beitr. Ent. **3**.

Beltranmyia **subgen. n.** (type *crepuscularis* Mall.) see *Culicoides*.

Ceratopogon bergensis p. 26, (*Fanthamia*) *carina* p. 28 **spp. n.** S. Africa; key to Ethiopian spp. p. 29, DE MEILLON & HARDY J. ent. Soc. S. Afr. **16**.

Culicoides of the forest zone, USSR (keys p. 79) pp. 75–94; *arboreus* (also Upper Volga) p. 90, *orientalis* p. 92 Maritime Province **spp. n.** figs., GUTSEVICH Parazit. Sborn. zool. Inst. Akad. Nauk SSSR **14** 1952.—*C.* revision of Australian spp. (key p. 373) pp. 369–394; *immaculatus*, *subimmaculatus* p. 375, *palpalis* p. 380, *mackayensis* p. 383, *angularis* p. 384, *magnesianus* p. 385, *robertsi*, *antennalis* p. 386, *bancrofti* p. 387, *magnimaculatus* p. 388, *cuniculus* p. 389, *dycei* p. 390, *mcmillani*, *parvimaculatus* p. 391, *marksi* p. 392 **spp. n.** Australia figs., LEE & REYE Proc. Linn. Soc. N.S.W. **77**.—*C.* (*Beltranmyia* **subgen. n.**) p. 34; *wirthomyia* **sp. n.** Mexico p. 227; *stigmalis* ♂ genitalia p. 229 figs., VARGAS Rev. Inst. Salub. Enferm. trop. **13**.—*C. acotylus* p. 257, *verecundus* Macfie (=*palpalis* M.) p. 259, *arubae* p. 269, *loughnani* p. 271, *phlebotomus* p. 275, *daedalus* p. 277 re-descriptions; *propriipennis* p. 262, *fluvialis* p. 264 ♂♂; *limai* ♀ p. 265; *flochabonnenci* **sp. n.** Venezuela p. 267 figs., ORTIZ & MIRSA Rev. Sanid. Asist. soc. **17** 1952.—*C. phlebotomus* Will. (=*amazonius* Macfie) p. 114; *willistoni* **sp. n.** Panama p. 116 figs., WIRTH & BLANTON Ent. News **64**.—*C. hertigi* p. 229, *macrostigma* p. 230, *miyamotoi* p. 231, *gorgasi*, *mojingaensis* p. 232, *tricoloratus* p. 233 **spp. n.** Panama figs., WIRTH & BLANTON J. Parasit. **39**.—*C. uniradialis* p. 70, *kintzi*, *carpenteri* p. 72, *galindoi* p. 73, *vargasi* p. 74, *magnipalpis* p. 76 **spp. n.** Panama figs., WIRTH & BLANTON J. Wash. Acad. Sci. **43**.—*C. fuscus* p. 1, *caliginosus* p.2 **spp. n.** Belgium figs., GOETGHEBUER Bull. Inst. Sci. nat. Belg. **28** 1952 no. 62.—*C. dewulfi*, *obsoletus* distinguishing characters; *poperinghensis* **sp. n.** Belgium p. 127 figs., GOETGHEBUER Arch. Hydrobiol. **48**.—*C. jouberti* p. 98, *tristanii* p. 100 **spp. n.** Gaboon, HUTTEL, W. & N. & VERDIER Ann. Parasit. hum. comp. **28**.—*C. vexans* egg p. 150, 1st stage larva p. 152 figs., JOBLING Parasitology **43**.—*C. nubeculosus* early stages p. 54, LAWSON Summ. Theses Univ. Glasgow **1949-50** 1950.—*C. pictimargo* **sp. n.** Japan p. 286 figs., TOKUNAGA & SHOGAKI Proc. ent. Soc. Wash. **55**.—*C. spinosus* ♀ p. 46, KHALAF Pan-Pacif. Ent. **29**.

Dasyhelea philotherma p. 103, *pyrsonota* p. 104 **spp. n.** Costa Rica figs., MACFIE Beitr. Ent. **3**.—*D. tecticola* **sp. n.** Germany p. 333 figs., REMMERT Beitr. Ent. **3**.

Lasiohelea stylifer re-description p. 242 figs., ORTIZ Rev. Sanid. Asist. soc. **17** 1952.

Leptoconops (*L.*) *venezuelensis* **sp. n.** Venezuela p. 165; (*L.*) *torrens* ♀ re-description p. 169 figs., ORTIZ t.c.—*L.* (*L.*) *harrisoni* p. 22, (*L.*) *capensis* p. 24 **spp. n.** S. Africa figs., DE MEILLON & HARDY J. ent. Soc. S. Afr. **16**.

Monohelea ocumare **sp. n.** Venezuela p. 255 figs., ORTIZ Rev. Sanid. Asist. soc. **17** 1952.—*M.* revision of American spp. (key p. 136) pp. 135–153; (*M.*) *lanei* p. 142, (*M.*) *macfiei*, (*M.*) *texana* p. 143, (*M.*) *ornata* p. 144, (*M.*) *stonei* (also Costa Rica, Panama) p. 148, (*M.*) *johannseni* p. 153 U.S.A., (*M.*) *guianae* Br. Guiana p. 150 **spp. n.** figs., WIRTH Proc. U.S. nat. Mus. **103** no. 3320.

Stilobezzia revision of Nearctic spp. (keys p. 58) pp. 57–85; *Eukraiohelea* a subgen. of *S.* not *Parabezzia* p. 61; (*Neostilobezzia*) *lutea* Mall. (=*mallochi* Hoffm.) p. 65; (*N.*) *stonei* U.S.A., Panama p. 66, (*S.*) *beckae* U.S.A., Peru p. 69, (*S.*) *punctipes* Florida, Mexico p. 79, (*S.*)

sybleae Virginia p. 82, (*S.*) *thomsenae* Florida p. 83 **spp n.** figs., WIRTH op. cit. **103** no. 3316.

CHIRONOMIDAE.

Chironomidae from western Cape Province, I, II, FREEMAN Proc. R. ent. Soc. London (B) **22** : 127–135, 3 figs., 201–213.

Contribution to catalogue of Belgian Chironomidae, GOETGHEBUER 1952 Bull. Inst. Sci. nat. Belg. **28** no. 62 : 3–4, 1 fig.

Savannah River Tendipedid larvae, ROBACK Proc. Acad. nat. Sci. Philad. **105** : 91–132, 44 figs.

Akiefferiella a subgen. of *Eukiefferiella*, q.v.

Chironomus perangustatus **sp. n.** Belgium p. 3 figs., GOETGHEBUER Bull. Inst. Sci. nat. Belg. **28** 1952 no. 62.

Clinotanypus description of Tokyo spp. pp. 573–576 ; *japonicus* ♀ p. 576 fig., OKADA Zool. Mag., Tokyo **51** 1939.—*C. sallesi* p. 276, *brasiliensis* p. 279 **spp. n.** Brazil figs., DE OLIVEIRA Rev. brasil. Biol. **13**.

Corynoneura scotti, *cristata* p. 209, *elongata* p. 210 **spp. n.** Cape Province figs., FREEMAN Proc. R. ent. Soc. Lond. (B) **22**.

Cricotopus fulgens p. 130, *flavozonatus*, *obscurus* p. 131, *angustus* p. 132 **spp. n.** Cape Province figs., FREEMAN t.c.

Eudactylocladius productus **sp. n.** Cape Province p. 202 fig., FREEMAN t.c.

Eukiefferiella (*Microcricotopus* Thien., *Akiefferiella* T., *Parakiefferiella* T. reduced to subgenn.) ; (*M.*) *niveipluma* p. 203, (*E.*) *angustistilus*, (*Camptokiefferiella*) *brevitarsis*, (?*P.*) *biloba* p. 205 **spp. n.** Cape Province figs., FREEMAN t.c.

Limnophyes spinosa **sp. n.** Cape Province p. 206 figs., FREEMAN t.c.

Metriocnemus scotti **sp. n.** Cape Province p. 129 figs., FREEMAN t.c.

Microcricotopus a subgen. of *Eukiefferiella*, q.v.

Microtendipes caducus larva p. 3 figs., ROBACK Notul. nat. Acad. Philad. no. 253.

Orthocladius bergensis p. 135, *conicus* p. 201 **spp. n.** Cape Province, FREEMAN Proc. R. ent. Soc. Lond. (B) **22**.

Orthosmittia hirtella **sp. n.** Cape Province p. 208 figs., FREEMAN t.c.

Parakiefferiella a subgen. of *Eukiefferiella*, q.v.

Pentaneura comata **sp. n.** Cape Province p. 129, FREEMAN Proc. R. ent. Soc. Lond. (B) **22**.

Procladius breviatus **sp. n.** Germany p. 235 figs., REMMERT Kieler Meeresforsch. **9**.

Psectrocladius viridescens **sp. n.** Cape Province p. 133 fig., FREEMAN Proc. R. ent. Soc. Lond. (B) **22**.

Pseudorthocladius similis p. 134, *lobiger* p. 201 **spp. n.** Cape Province figs., FREEMAN t.c.

Pseudosmittia capicola **sp. n.** Cape Province p. 208 figs., FREEMAN t.c.

Smittia nigra **sp. n.** Cape Province p. 206 figs., FREEMAN t.c.

Symbiocladius systematic notes on some spp. pp. 1–2, ROBACK Notul. nat. Acad. Philad. no. 251.

Tendipes characters p. 47 ; (*Limnochironomus*) *figueroai* **sp. n.** Mexico p. 48 figs., VARGAS Rev. Soc. mexicana Hist. nat. **13** 1952.

Thienemanniella analis, *antennata*, *lineola* **spp. n.** Cape Province p. 212 figs., FREEMAN Proc. R. ent. Soc. Lond. (B) **22**.

Trichocladius capensis **sp. n.** Cape Province p. 133 figs., FREEMAN t.c.—*T. fucicola* pupa p. 66, THIENEMANN Kieler Meeresforsch. **9** 1952.—*T. psammophilus* **sp. n.** Germany p. 236 ; *vitripennis* characters p. 237 figs., REMMERT Kieler Meeresforsch. **9**.

CULICIDAE.

Anopheline mosquitos of Indo-Australian region, BONNE-WEPSTER & SWELLENGREBEL 504 pp. 179 figs. 22 maps.

Distribution and bionomics of Anophelines in Venezuela, COVA GARCÍA 1951 Publ. Div. Malar. no. 10 : 1–226.

Mosquitos of Porto Rico, FOX J. Parasit. **39** : 178–179.

Pictorial keys to mosquitos of medical importance of Anglo-Egyptian Sudan, FOOTE Mosquito News **13** : 255–258, illus.

List of Anophelines of Neotropical region, GABALDÓN & COVA-GARCÍA 1952 Rev. Sanid. Asist. soc. **17** : 173–210, 12 fldg. pls.

Keys to Culicid larvae of Morocco, GAUD Arch. Inst. Pasteur Maroc **4** : 478–490.

Tarsal sensillae of mosquitos, HALCROW Entomologist **86** : 104–105.

Mosquitos of the Yemen, KNIGHT Proc. ent. Soc. Wash. **55** : 212–234, 2 figs.

Culicidae of Slovakia, KRAMÁŘ, WEISER & ROSICKÝ 1952 Zool. ent. Listy **1** : 196–203, 5 figs.

Mosquitos of Curaçao, VAN DER KUYP Caribbean med. J. **25** : 37–39, 1 pl.

Culicinae from Netherlands Antilles and some other Caribbean localities, VAN DER KUYP Natuurwet. Stud. Suriname no. 8 : 144–148.

Mosquito fauna of Japan and Korea, 2nd edn., LACASSE & YAMAGUTI 1948 456 pp. 75 pls. 67 figs. [not seen].

Mosquito fauna of Japan and Korea, 3rd edn., LACASSE & YAMAGUTI 1950 viii & 268, 7, 213 pp. 96 pls. 94 figs. 51 maps.

Neotropical Culicidae, Vols. I & II, LANE 1112 pp. 1072 figs.

Provisional list of Culicinae of Ecuador, LEVÍ-CASTILLO Rev. ecuator. Ent. Parasit. **1** no. 1 : 34–45.

Mosquitos of Ecuador, pt. 1, LEVÍ-CASTILLO Rev. ecuator. Ent. Parasit. **1** no. 3 : 15–28.

Culicini of Katanga, MATTINGLY & LIPS Rev. Zool. Bot. afr. **47** : 311–343, 9 figs. ; **48** : 49–72.

Mosquitos of Alsace, NOELDNER Encycl. ent. (B) II Dipt. **11** : 5–45, 24 figs.

Mosquitos in southern highlands of Tanganyika, II, PETERS Ent. mon. Mag. **89** : 65–67.

Culicinae of Cameroons, RAGEAU & ADAM Ann. Parasit. hum. comp. **28**: 412–424.

Mosquitos of Saskatchewan (keys p. 436), REMPEL Canad. J. Zool. **31** : 433–509, 162 figs.

Pictorial keys to the mosquitos of medical importance of Korea, SOMMERMAN Mosquito News **13** : 18–20, 1 pl.

Pictorial keys to the mosquitos of medical importance of Formosa and Malaya, SOMMERMAN & FOOTE Mosquito News **13** : 20–22, 2 pls., 162–164, 2 pls.

Annotated list of Ohio mosquitos, VENARD & MEAD Ohio J. Sci. **53** : 327–331.

Culicinae of Fezzan, VERMEIL Bull. Soc. Path. exot. **46** : 445–453, 2 figs.

Aëdes spp. of E. & S. Africa of subgen. *Stegomyia* pp. 1–65; (*S.*) *vinsoni* **sp. n.** Mauritius p. 16 figs., MATTINGLY Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.—*A.* (*Stegomyia*) *usambara* **sp. n.** Tanganyika p. 294 fig., MATTINGLY Ann. trop. Med. Parasit. **47**.—*A.* (*Aedimorphus*) *lamborni* pupa p. 325, MATTINGLY in MATTINGLY & LIPS Rev. Zool. Bot. afr. **47**.—*A.* distribution of spp. of subgen. *Stegomyia* in Anglo-Egyptian Sudan p. 51 figs., LEWIS Ann. trop. Med. Parasit. **47**.—*A.* subgenn. *Aëdimorphus*, *Banksinella*, *Aëdes* & *Cancraëdes* of Philippines pp. 453–481 figs., KNIGHT & HULL Pacif. Sci. **7**.—*A.* (*Finlaya*) *niveus* **subsp. n.** *nipponicus* Japan p. 79 (of Part II) figs., LACASSE & YAMAGUTI Mosq. Fn. Japan & Korea 1948 [not seen]. *A.* (*Finlaya*) *nipponicus* LaC. & Yamag. raised to sp. not subsp. of *niveus* p. 146 figs., LACASSE & YAMAGUTI Mosq. Fn. Japan & Korea 1950.—*A.* (*Finlaya*) discussion of *leucocelaenus* complex pp. 529–541 ; *l.* **subsp. n.** *clarki* Panama p. 531 ; (*F.*) *leucophoebus* **sp. n.** Brazil p. 535 ; (*F.*) *leucotaeniatus*

re-description p. 536 figs., GALINDO, CARPENTER & TRAPIDO Ann. ent. Soc. Amer. **45.**—*A.* (*Ochlerotatus*) *pullatus* early stages p. 205 figs., KRAMÁŘ Zool. ent. Listy **2.**—*A.* (*Lanesia* **subgen. n.**) *garciai* **sp. n.** Ecuador p. 102 figs., LEVÍ-CASTILLO Rev. ecuator. Ent. Parasit. **1** no. 3.—*A.* (*Ochlerotatus*) *harrisoni* p. 51, (*O.*) *breedensis* p. 55 **spp. n.** S. Africa fig., MUSPRATT J. ent. Soc. S. Afr. **16.**—*A.* (*Ochlerotatus*) *meprai* **sp. n.** Argentina p. 1, MARTÍNEZ & PROSEN Folia Mision Estud. Pat. reg. argent. no. 1.—*A.* (*Ochlerotatus*) *caspius* morphology pp. 204–210, MANFRIDI R.C. Ist. sup. Sanit. **16.**—*A. schizopinax* larva p. 146 figs., SUDIA Ent. News **64.**—*A. pulchritarsis* all stages p. 95 figs., SICART Bull. Soc. Sci. nat. Tunisie **5** 1952.—*A.* (*Stegomyia*) *downsi* Boh. & Ingram reduced to subsp. of *flavopictus* p. 184, BOHART Proc. ent. Soc. Wash. **55.**

Anopheles revision of *hyrcanus* group in south-east Asia pp. 5–76, keys to all stages of Malayan spp. p. 7; *crawfordi* **sp. n.** Malay Peninsula, Sumatra p. 41 figs., REID Bull. ent. Res. **44.**—*A.* spp. of Kalenda, Belg. Congo pp. 48–51, BOUILLON Rev. Zool. Bot. afr. **47.**—*A.* subgen. *Maculipennia* revision of World spp. pp. 173–188, BUONOMINI & MARIANI Riv. Malariol. **32.**—*A.* of Fernando Po (keys p. 120) pp. 113–125 figs., GIL COLLADO Med. colon. **21.**—*A.* (*A.*) *edwardsi* Yamada a subsp. of *koreicus* p. 32 figs., LACASSE & YAMAGUTI Mosq. Fn. Japan & Korea 1950.—*A. yatsushiroensis* **sp. n.** Japan p. 196 figs., MIYAZAKI Kyushu Mem. med. Sci. **2** 1951.—*A. hyrcanus* var. *sinensis* larval stages p. 37, SHIBATA Bull. Yamaguchi med. Sch. **1** no. 1.—*A. walkeri* colour variation in halteres pp. 209–210, STONE Mosquito News **13.**—*A.* (*Kerteszia*) *cruzii*, (*K.*) *homunculus* larval distinguishing characters p. 401 figs., LIMA Rev. brasil. Malariol. **4** 1952.—*A. plumbeus* larva p. 90 figs., KRAMÁŘ Zool. ent. Listy **1** 1952.—*A.* (*Myzomyia*) *rupicolus* larva p. 222, KNIGHT Proc. ent. Soc. Wash. **55.**—*A.* (*Myzomyia*) *cristatus* ? larva p. 257 figs., VAN HELL Docum. Med. geogr. trop. **5.**—*A. radama* larva p. 30, DE MEILLON & HARDY J. ent. Soc. S. Afr. **16.**—*A. turkhudi* larval characters pp. 1449–1451 figs., IYENGAR C.R. Acad. Sci., Paris **237.**—*A. maculipennis* larvae with thoracic process pp. 326–328 fig., GAUD Ann. Parasit. hum. comp. **28.**—*A. broussesi* larva p. 447 fig., VERMEIL Bull. Soc. Path. exot. **46.**

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Culex catalogue of American spp. pp. 167–206, VARGAS Bol. Inst. Estud. méd. biol. Méx. **9** 1952.—*C.* subgenn. *Melanoconion* & *Mochlostryax* pupal morphology and chaetotaxy pp. 89–100 figs., FOOTE Proc. ent. Soc. Wash. **55.**—*C.* (*Neoculex*) *territans* Wlk., (*N.*) *apicalis* Adams distinguishing characters p.106; *territans* to be substituted for *apicalis* in British list; *judaicus* Edw. a distinct sp. and not var. of *apicalis* p. 108, MATTINGLY Proc. R. ent. Soc. Lond. (B) **22.**—*C.* (*Neoculex*) *kingianus* pupa p. 333 fig., MATTINGLY in MATTINGLY & LIPS Rev. Zool. Bot. afr. **47.**—*C. pipiens* complex in S.E. Australia (key p. 144) pp. 131–146; *pipiens* **subsp. n.** *australicus* Australia p. 143 figs., DOBROTWORSKY & DRUMMOND Proc. Linn. Soc. N.S.W. **78.**—*C. pipiens* complex in S.E. Australia pp. 357–360; *globocoxitus* **sp. n.** Australia p. 357 figs., DOBROTWORSKY Proc. Linn. Soc. N.S.W. **77.**—*C.* (*Lophoceraomyia*) *tuberis* ♀, larva p. 185, pupa p. 186; (*Neoculex*) *okinawae* **sp. n.** Okinawa p. 187 figs., BOHART Proc. ent. Soc. Wash. **55.**—*C.* (*Neoculex*) *reevesi* all stages p. 228; (*Melanoconion*) *anips* larva p. 232 figs., BROOKMAN & REEVES Ann. ent. Soc. Amer. **46.**—*C.* key to larvae in Texas p. 117 figs., BRELAND Texas J. Sci. **5.**—*C. milloti* **sp. n.** Madagascar p. 331 figs., DOUCET Mém. Inst. sci. Madagascar (A) **3** 1949.—*C.* (*Melanoconion*) *sardinerae* **sp. n.** Porto Rico p. 179 figs., FOX J. Parasit. **39.**—*C.* (*C.*) *sitiens* larva p. 231, KNIGHT Proc. ent. Soc. Wash. **55.**—*C.* (*C.*) *mattinglyi* p. 320, (*Neoculex*) *jenkinsi* p. 323 **spp. n.** Yemen figs., KNIGHT J. Wash. Acad. Sci. **43.**—*C. torrentium* early stages p. 203 figs., KRAMÁŘ Zool. ent. Listy **2.**—*C.*

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Dixa subgen. *Dixella* Dyar & Shann. (=subgen. *Paradixa* Tonn.) p. 40, LANE Neotrop. Culic. I.—*D.* (*Paradixa*) *lipsi* **sp. n.** Belg. Congo p. 202 figs., BENOIT Rev. Zool. Bot. afr. **48**.

Danielsa mediomaculata Theo. (=*mediolineata* T.) p. 695, LANE & CERQUEIRA in LANE Neotrop. Culic. II.

Haemagogus Will. (=subgen. *Stegoconops* Lutz); *Cyanoconops* **subgen. n.** p. 106, ANTUNES Rev. Ass. paul. Med. **14** 1939 [not seen].—*H.* revision of S. American spp., all stages described (keys p. 12) pp. 5–77; (*Masculongipalpi* **subgen. n.** p. 7 (altered to *Longipalpifer* on errata slip p. 11)) figs., LEVÍ-CASTILLO Cuenca, Ecuador, Edit. "Don Bosco" 1951.—*H.* status of subgenn. discussed pp. 19–25; subgen. *Cyanoconops* Ant. a nom. nud. p. 24, LEVÍ-CASTILLO Rev. ecuator. Ent. Parasit. **1** no. 1.—*H.* (*H.*) *iridicolor* p. 16, (*H.*) *argyromeris* p. 17, (*H.*) *regalis* p. 19, (*H.*) *mesodentatus* p. 21 larvae, adults; (*H.*) *albomaculatus* terminalia described and figured p. 37 figs., LEVÍ CASTILLO Rev. ecuator. Ent. Parasit. **1** no. 2.

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Megarhinus validity of name discussed p. 27; keys to American ♂♂ p. 29, larvae, ♂ genitalia p. 30, VARGAS Rev. Inst. Salub. Enferm. trop. **13**.

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Psorophora eggs p. 620 figs., HORSFALL, MILES & SOKATCH Ann. ent. Soc. Amer. **45**.

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Wyeomyia (*Cruzmyia*) *mattinglyi* **sp. n.** Brazil p. 935 figs., LANE Neotrop. Culic. II.—*W.* (*W.*) *abebela* pupa p. 253 figs., DE BUEN An. Inst. Biol., Mexico **23** 1952.

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Tipulidae of Madagascar, II, ALEXANDER Mém. Inst. sci. Madagascar (E) **3**: 279–311, 30 figs.

Japanese Tipulidae, pts. I, II, ALEXANDER Philipp. J. Sci. **82**: 21–75, 2 pls. 3 figs., 141–179, 4 pls.

Oriental Tipulidae, pt. 3, ALEXANDER Rec. Indian Mus. **50**: 321–357, 15 figs.

Tipulids of Ecuador, pts. I–III, ALEXANDER Rev. ecuator. Ent. Parasit. **1** no. 1: 5–13, no. 2: 6–14, 1 pl., no. 3: 29–39, 1 pl.

Tipulidae of Mt. Ishizuchi & Omogo Valley, Japan, ALEXANDER Trans. Shikoku ent. Soc. **3**: 71–83.

List of Tipulidae of Italy, MANNHEIMS Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 4: 1–8.

Revision of Palaearctic Tipulidae, MANNHEIMS in LINDNER Flieg. palaearkt. Reg. **15** 1952: 65–112, 1 pl. 33 figs., 1953: 113–136, 18 figs.

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List of Stratiomyids of Ecuador, CAMPOS R. [? 1953] Rev. ecuator. Hig. Med. trop. **8–9** : 99–101.

E. African Stratiomyiidae, LINDNER Jh. Ver. vaterl. Naturk. Württemb. **108** : 18–29.

Key to Stratiomyidae genn. based on genitalia, SORENSEN & FLUKE Ann. ent. Soc. Amer. **46** : 341–342, 2 pls.

Review of Stratiomyidae of Wisconsin, SORENSON & FLUKE 1952 Trans. Wis. Acad. Sci. Arts Lett. **42**: 149–172, 1 pl.

Berkshiria aldrichi early stages p. 295 figs., COOK Ann. ent. Soc. Amer. **46**.

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Euryneurasoma Johns. (=*Neurota* Curr.); *slossonae* J. (=*bicolor* C.); *maculata* **sp. n.** Bimini Is., W. Indies p. 2, JAMES t.c.

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Neosolva **gen. n.**, *dubia* **sp. n.** Fr. Guinea p. 152, SÉGUY Mém. Inst. franç. Afr. noire no. 19 1952.

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Pachygaster cazieri **sp. n.** Bimini Is., W. Indies p. 5, JAMES Amer. Mus. Novit. no. 1613.

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List of Pantophthalmids of Ecuador, CAMPOS R. [? 1953] Rev. ecuator. Hig. Med. trop. **8–9** : 105.

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List of Tabanids of Ecuador, CAMPOS R. [? 1953] Rev. ecuator. Hig. Med. trop. **8–9** : 101–105.

Descriptive notes on some Neotropical Tabanidae, FAIRCHILD Ann. ent. Soc. Amer. **46** : 259–280, 2 pls.

Some Tabanidae from State of Chiapas, Mexico, FAIRCHILD Psyche **60** : 41–51, 2 figs.

Argentine Tabanids, II, HACK An. Inst. Med. reg. **3** : 339–347, 10 figs.

Tabanidae of the Anglo-Egyptian Sudan, LEWIS Bull. ent. Res. **44** : 175–216, 28 figs.

Bouvieromyiini of Madagascar, SÉGUY 1949 Mém. Inst. sci. Madagascar (A) **3** : 277–289, 3 figs.

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Bolbodimyia lateralis re-description p. 343 figs., HACK An. Inst. Med. reg. **3**.

Bouvieromyia key to Madagascan spp. p. 282; *macrops* p. 283, *unimaculata* p. 284 **spp. n.** Madagascar fig., SÉGUY Mém. Inst. sci. Madagascar (A) **3** 1949.

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Dichelacera (*D.*) *crocata* **sp. n.** Panama p. 263 figs., FAIRCHILD Ann. ent. Soc. Amer. **46.**

Ectenopsis vulpecula var. *angusta* larva p. 271, pupa p. 273 figs., ENGLISH Proc. Linn. Soc. N.S.W. **77.**

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List of Dolichopodidae collected in S. E. France and Algeria, VAILLANT 1952 Bull. Inst. Sci. nat. Belg. **28** no. 65: 1–15, 19 figs.

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Syntormon smirnovi **sp. n.** Tadzhikistan p. 403 fig., SHTAKEL'BERG Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Teuchophorus bipilosus re-description p. 8 figs., VAILLANT Bull. Inst. Sci. nat. Belg. **28** 1952 no. 65.

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Zetterstedt's Phoridae in Lund collections, SCHMITZ Opusc. ent. **18**: 124–140.

Revision of Palaearctic Phoridae. SCHMITZ in LINDNER 1952 Flieg. palaearkt. Reg. **33**: 273–320, 1 pl. 15 figs.

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Stichillus matsumurai **sp. n.** Japan p. 276 figs., SCHMITZ Flieg. palaearkt. Reg. **33** 1952.

Tritoconicera **subgen. n.** (type *tibialis* Schm.) see *Conicera*.

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British Syrphidae, with keys, COE Handb. Ident. Br. Ins. **10** pt. 1, 98 pp., 46 figs.

Syrphidae of Mt. Ishizuchi & Omogo valley, Japan, SHIRAKI & EDASHIGE Trans. Shikoku ent. Soc. **3** : 84–125, 1 pl. 9 figs.

List of Syrphidae from Warsaw district, TROJANOWA Fragm. faun. Mus. zool. polon. **6** : 449–463.

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Melanostoma transversum p. 94, *alpinum* p. 96 **spp. n.** Japan figs., SHIRAKI & EDASHIGE Trans. Shikoku ent. Soc. **3.**—*M. neotropicum* see *Rhysops*.

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Mesograpta Loew valid name for *Mesogramma* Loew nec Steph. (Lep.) p. 208, FLUKE Ent. News **64.**—*M. teligera* **sp. n.** Arizona p. 125 figs., FLUKE J. Kans. ent. Soc. **26.**

Microdon mynthes **sp. n.** Fr. Guinea p. 157, SÉGUY Mém. Inst. franç. Afr. noire no. 19 1952.

Myiatropa florea larva, puparium p. 285, COE Ent. Gaz. **4.**

Neoascia obliqua **ab. n.** *imperfecta* Holland p. 242, VAN DOESBURG Ent. Ber., Amst. **14.**

Orthoneura kozlovi p. 357, *roborovskii* p. 359, *ceratura* (also Siberia, Mongolia) p. 360 China, *hissarica* Tadzhikistan p. 358, *pilifacies* Mts. of Centr. Asia p. 361 **spp. n.** figs., SHTAKEL'BERG Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Parhelophilus currani **sp. n.** Louisiana p. 128 fig., FLUKE J. Kans. ent. Soc. **26.**—*P. brooksi* see *Lunomyia*.

Penthesilea nigrescens **sp. n.** Japan p. 114 fig., SHIRAKI & EDASHIGE Trans. Shikoku ent. Soc. **3.**

Pipizella abdominalis p. 84, *nitida* p. 86 **spp. n.** Japan figs., SHIRAKI & EDASHIGE t.c.—*P. mongolorum* W. Siberia, Mongolia p. 350, *mesasiatica* (also Dagestan, N. Kazakhstan), *ochrozona* Tadzhikistan p. 352 **spp. n.** figs., SHTAKEL'BERG Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Psarochilosia **gen. n.** p. 371, *djakonovi* **sp. n.** S. Maritime Province p. 372 fig., SHTAKEL'BERG t.c.

Pseudodoros psyllidivora **sp. n.** Ivory Coast p. 47, SÉGUY Encycl. ent. (B) II Dipt. **11.**

Rhysops neotropicum Curr. (=*columella* Fluke) (from *Melanostoma*) p. 208, FLUKE Ent. News **64.**

Sphaerophoria scutellaris morphology of immature stages p. 213 figs., RATTAN LAL & LAL GUPTA Indian J. Ent. **15.**

Sphegina elongata p. 106, *japonica* p. 108 **spp. n.** Japan figs., SHIRAKI & EDASHIGE Trans. Shikoku ent. Soc. **3.**

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Volucella review of groups p. 3; *exeugenia* Jamaica p. 4, *sica* Ecuador, *pallisteri* Mexico p. 9 **spp. n.**; *mexicana* Macq. p. 7, *dispar* Macq. p. 8 distinct spp., not synonyms of *esuriens*; *esuriens* further description p. 8, CURRAN Amer. Mus. Novit. no. 1645.—*V. beatricea* Hull (=*ecuadorea* Fluke) p. 209, FLUKE Ent. News **64.**

Zelima frontalis p. 116, *latifrons* p. 118, *hisamatsui* p. 119 **spp. n.** Japan figs., SHIRAKI & EDASHIGE Trans. Shikoku ent. Soc. **3.**

CONOPIDAE.

Myopa review of N. American spp. pp. 97–114, key p. 99; *perplexa* p. 103, *bohartorum* p. 107 **spp. n.** California, CAMRAS Wasmann J. Biol. **11.**

Zodion americanum Wied. (=*albifacies* Van Duz., *costaricensis* Kröb., *grisescens* K.) p. 396; *simis* p. 397, *flavostriatum* p. 399 **spp. n.** Brazil; *triangularis* characters; *pictum* Sch. (=*pilosum* K.) p. 398, CAMRAS Ann. Mag. nat. Hist. (12) **6.**

Muscoidea Calyptrata.

OESTRIDAE.

Larvae of bot-flies on domestic animals, USSR (keys p. 25), GRUNIN Opred. Faune SSSR **51**: 5–124, 139 figs.

Studies on the family Gasterophilidae, with keys to adults and maggots, ZUMPT & PATERSON J. ent. Soc. S. Afr. **16**: 59–72.

Gasterophilus keys to adults and larvae p. 60, catalogue p. 69, ZUMPT & PATERSON J. ent. Soc. S. Afr. **16.**—*G.* (*Gastrophilus*) *nigricornis* all stages pp. 169–172 figs., CHERESHNEV Dokl. Akad. Nauk SSSR (N.S.) **88.**

Gyrostigma keys p. 67, catalogue p. 70; *pavesii* ♀ p. 68, ZUMPT & PATERSON J. ent. Soc. S. Afr. **16.**

Hypoderma bovis, *lineatum* larval stages pp. 194–202, ŽUKOVIĆ Vet. Arhiv, Zagreb **22** 1952.

Tracheomyia macropi adult p. 198 figs., PARAMONOV Ann. Mag. nat. Hist. (12) **6.**

TACHINIDAE.

Taxonomy and host relations of Ormiini in Western Hemisphere, SABROSKY Proc. ent. Soc. Wash. **55**: 167–183, 290–305.

Achaetoneura stilla see *Frontiniella parancilla.*

Actia punctum p. 107, *perispoliata* p. 108 China, *mellina* Burma p. 109 **spp. n.**, MESNIL Bull. Ann. Soc. ent. Belg. **89.**

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Austrophasiopsis luteipennis **sp. n.** Philippines p. 162, MESNIL Bull. Ann. Soc. ent. Belg. **89.**

Brachychaeta petiolata **sp. n.** Palestine p. 100, MESNIL t.c.

Cadurcia chrysogaster **sp. n.** India p. 95, MESNIL t.c.

Calocarcelia longimana **sp. n.** Burma p. 88, MESNIL t.c.

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Centeter see *Hyperecteina.*

Chaetocnephalia innupta ♂ p. 26, CAMPOS S., Agric. tecn., Chile **13.**

Chaetoptilia angustifrons **sp. n.** Luzon p. 164, MESNIL Bull. Ann. Soc. ent. Belg. **89.**

Chaetovoria melancholica **sp. n.** Palestine p. 171, MESNIL t.c.

Colurus **gen. n.** (nr. *Pterotopeza*), *downsi* **sp. n.** Mexico p. 98, REINHARD J. Kans. ent. Soc. **26.**

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Ctenophorocera violacea **sp. n.** Burma p. 94, MESNIL t.c.

Degeeria luctuosa all stages, morphology pp. 140–158 figs., DOMENICHINI Boll. Zool. agr. Bachic. **19.**

Degeeriopsis **gen. n.** (nr. *Medina*), *xanthogastra* **sp. n.** Burma p. 104, MESNIL Bull. Ann. Soc. ent. Belg. **89.**

Demoticoides **gen. n.** (nr. Leskiinae), *pallidus* **sp. n.** India p. 150, MESNIL t.c.

Dichaetoneura leucoptera larval stages, reproductive system pp. 20–26 figs., THOMPSON Canad. Ent. **85.**

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Euhallidaya genalis Coq. (=*Orphanotrophus orbitalis* Reinh.) p. 244, REINHARD Proc. ent. Soc. Wash. **55.**

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Frontiniella parancilla Towns. (emended spelling for *pararcilla*) (=*Achaetoneura stilla* Reinh.) p. 243, REINHARD Proc. ent. Soc. Wash. **55.**

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Hyalurgus minimus **sp. n.** Burma p. 154, MESNIL t.c.

Hyperecteina Schiner (=*Centeter* Aldr.); *aldrichi* **n. n.** for *cinerea* Aldr. nec Perris p. 50, MESNIL Bull. Soc. ent. Fr. **58.**

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Hypostena pubiseta **sp. n.** Burma p. 170, MESNIL t.c.

Juriniopsis lampuris **sp. n.** Mexico p. 93, REINHARD Bull. Brooklyn ent. Soc. **48.**

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Lasioneura dextella **sp. n.** Mexico p. 95, REINHARD Bull. Brooklyn ent. Soc. **48.**

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Peleteria carnata **sp. n.** Mexico p. 92, REINHARD Bull. Brooklyn ent. Soc. **48.**

Philippodexia pallidula **sp. n.** Mindanao p. 173, MESNIL Bull. Ann. Soc. ent. Belg. **89.**

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Platymyia (*Alsomyia*) *orientalis* Burma p. 96, (*Himera*) *melancholica* India, (*P.*) *tristis* Palestine p. 97 **spp. n.**, MESNIL Bull. Ann. Soc. ent. Belg. **89.**

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CALLIPHORIDAE.

Systematic position of Ameniini discussed, VAN EMDEN Ent. mon. Mag. **89** : 120.

Notes on distribution, systematic position and variation of some Calliphorinae of western N. America, JAMES Proc. ent. Soc. Wash. **55** : 143–148.

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Calliphora key to Nearctic spp. p. 144, JAMES t.c.—*C. vomitoria, vicina* early stages p. 264 figs., FERNÁNDEZ Rev. ibér. Parasit. **13.**—*C. tibialis, violacea* see *Callitroga macellaria* ; *rufipes* see *Paralucilia fulvicrura.*

Callitroga macellaria F. (=*lepida* R.-D., *socia* R.-D., *Calliphora tibialis* Macq. (not syn. of *Paralucilia fulvipes* M.), *Chrysomya plaei* R.-D. p. 37, *Calliphora violacea* Macq.) ; *hominivorax* Cqrl. (=*americana* Cush. & Patt.) p. 38, SABROSKY Proc. ent. Soc. Wash. **55.**

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Cordylobia rodhaini ♂, ♀ terminalia, larva pp. 306–312 figs., FAIN Rev. Zool. Bot. afr. **48.**

Hemigymnochaeta preliminary contribution to taxonomy pp. 481–495; key to Ethiopian spp. p. 485; *laticeps* **sp. n.** p. 490; *liberia* **subsp. n.** *orientalis* p. 493 S. Rhodesia; systematic catalogue of spp. p. 517 figs., ZUMPT Trans. R. ent. Soc. Lond. **104.**

Lucilia thatuna see *Bufolucilia*.

Paralucilia fulvicrura R.-D. (=*fulvipes* Macq., *Calliphora rufipes* M.) p. 38, SABROSKY Proc. ent. Soc. Wash. **55.**

Phumosia mossopi p. 70, *cuthbertsoni* p. 72, *nana* (also Transvaal, Kenya, Uganda, Belg. Congo, Sudan, Gold Coast) p. 74 **spp. n.** S. Rhodesia figs., ZUMPT Rev. ecuator. Ent. Parasit. **1** no. 3.

Pollenia rungsi **sp. n.** Morocco p. 88, SÉGUY Encycl. ent. (B) II Dipt. **11.**

Rhynchoestrus icadion **sp. n.** Algerian Sahara p. 89, SÉGUY t.c.

Tricyclea preliminary contribution to taxonomy pp. 481, 495–517; key to Ethiopian spp. p. 495; *nana* Liberia p. 497, *patrizii* Kenya p. 500, *cockbilli* S. Rhodesia p. 510, *currani* Belg. Congo p. 511 **spp. n.**; systematic catalogue of spp. p. 518 figs., ZUMPT Trans. R. ent. Soc. Lond. **104.**—*T. dubia* S.W. Africa p. 75, *vansomereni* Uganda p. 76 **spp. n.** figs., ZUMPT Rev. ecuator. Ent. Parasit. **1** no. 3.

SARCOPHAGIDAE.

Bercaea haemorrhoidalis re-description p. 359 figs., GONÇALVES Rev. brasil. Biol. **13.**

Craticulina digressum **sp. n.** Mauretania p. 69, SÉGUY Encycl. ent. (B) II Dipt. **11.**

Dexosarcophaga grata Ecuador p. 44, *wicharti* Brazil p. 46 **spp. n.** figs., DE SOUZA LOPES Rev. brasil. Biol. **13.**

Dolichotachina proxima **sp. n.** Mauretania p. 68, SÉGUY Encycl. ent. (B) II Dipt. **11.**—*D. musiva* **sp. n.** Mozambique p. 160, SÉGUY Rev. franç. Ent. **20.**

Eumacronychia scitula **sp. n.** California p. 50, REINHARD Pan-Pacif. Ent. **29.**

Euphyto ruficeps **sp. n.** California p. 49, REINHARD t.c.

Metopia revision of Italian spp. (key p. 156) pp. 147–170; *rondaniana* p. 163, (*Anicia*) *grandii* p. 166 **spp. n.** Italy figs., VENTURI Boll. Ist. Ent. Univ. Bologna **19.**—*M. krombeini* **sp. n.** U.S.A. p. 50; keys to some spp. p. 52; *sinipalpis* characters p. 53, SABROSKY Bull. Brooklyn ent. Soc. **48.**

Miltogramma microcera **sp. n.** Mauretania p. 68, SÉGUY Encycl. ent. (B) II Dipt. **11.**

Notochaeta bufonivora **sp. n.** Venezuela p. 140 figs., DE SOUZA LOPES & VOGELSANG An. Acad. bras. Ciênc. **25.**

Oxysarcodexia sarcinata Colombia p. 48, *mitifica* Venezuela p. 50 **spp. n.** figs., DE SOUZA LOPES Rev. brasil. Biol. **13.**

Pachyophthalmus alienus **sp. n.** Hawaii p. 131 figs., DODGE Proc. Hawaii. ent. Soc. **15.**

Paraphrissopoda (*Euboettcheria*) *perlita* Br. Guiana p. 41, (*E.*) *anatina* Ecuador p. 42 **spp. n.** figs., DE SOUZA LOPES Rev. brasil. Biol. **13.**

Rafaelia characters p. 225; *rufiventris* p. 226, *acanthoptera* p. 228 re-descriptions figs., DE SOUZA LOPES t.c.

Sarcodexia notata **sp. n.** Venezuela p. 230 figs., DE SOUZA LOPES t.c.

Sarcophaga important character in identification of ♀♀ p. 167, D'ASSIS-FONSECA J. Soc. Brit. Ent. **4.**—*S. freyi* p. 77, *sabiensis* p. 78, *gertrudae* p. 82 Transvaal, *vanriebeecki* Cape Province p. 80 **spp. n.** figs., ZUMPT Rev. ecuator. Ent. Parasit. **1** no. 3.—*S. californica* Park. (=*postilla* Reinh.); *pleomenda* **n. n.** for *mendax* Reinh. nec Wlk. p. 243, REINHARD Proc. ent. Soc. Wash. **55.**—*S.* distribution and list of some Italian spp.

p. 37, SACCÀ & RIVOSECCHI Riv. Parassit. **14.**—*S. silvai* p. 4, *sisyphus* p. 6 **spp. n.** Mozambique figs., ZUMPT Moçambique no. 70 1952.—*S. aldrichi* early stages p. 381 figs., ARTHUR & COPPEL Canad. J. Zool. **31.**—*S. gressitti* re-description p. 132 figs., DODGE Proc. Hawaii. ent. Soc. **15.**—*S. maculata* early stages p. 74 figs., QUENTIN Encycl. ent. (B) II Dipt. **11.**

Sarcotachina moralesi **sp. n.** Spanish Sahara p. 90, SÉGUY Encycl. ent. (B) II Dipt. **11.**

Tricholioproctia bidentata p. 21, *spinigera* p. 23 **spp. n.** Australia figs., DE SOUZA LOPES Rev. brasil. Biol. **13.**

MUSCIDAE (*s.l.*).

Key to metallic genera of Neotropical Phaoniinae with catalogue of spp., ALBUQUERQUE 1952 Bol. Mus. nac. R. de J. (N.S.) Zool. no. 116 : 6–13.

Some additional British Anthomyiidae, COLLIN J. Soc. Brit. Ent. **4** : 169–177.

Key to eggs and larvae of Japanese Stomoxydinae, KANO Jap. J. exp. Med. **23** : 187.

Morphology and ethology of Italian Stomoxydinae, RIVOSECCHI R.C. Ist. sup. Sanit. **16** : 286–332, 7 pls.

Morphological notes and diagnoses of Italian Stomoxydinae, RIVOSECCHI Riv. Parassit. **14** : 29–36, 18 figs.

Aricia remotella see *Phorbia sepia.*

Bdellolarynx sanguinolentus early stages p. 191 figs., KANO Jap. J. exp. Med. **23.**

Chiastochaeta revision of European spp. pp. 655–668 ; *inermella* Zett. (=*lacteipennis* S. & D., *lophota* Karl) p. 656 ; *dentifera* (also Switzerland, Germany) p. 660, *macropyga*, *setifera* p. 663, *rotundiventris* (also Switzerland) p. 665 Austria **spp. n.** figs., HENNIG Beitr. Ent. **3.**

Coenosia infantula, *tricolor* distinguishing characters p. 169 ; *pudorosa* p. 170, *vibrissata* (also Guernsey) **spp. n.** England ; *verralli* **n. n.** for *steini* Verr. nec Strbl. p. 171, COLLIN J. Soc. Brit. Ent. **4.**

Delia urbana characters p. 669 figs., HENNIG Beitr. Ent. **3.**—*D. antiqua* early stages pp. 583–586 figs., MILES Bull. ent. Res. **44.**

Euspilaria vumba **sp. n.** S. Rhodesia p. 13, SNYDER Amer. Mus. Novit. no. 1608.

Fannia enotahensis **sp. n.** Georgia p. 141, SEAGO J. Kans. ent. Soc. **26.**

Glossina of Fr. Equatorial Africa pp. 195–197, MAILLOT Bull. Soc. Path. exot. **46.**—*G. palpalis*, varr. in Fr. Equat. Africa pp. 1066–1080 figs., MAILLOT Bull. Soc. Path. exot. **46.**

Helina arctata, *crinita* **spp. n.** England p. 173, COLLIN J. Soc. Brit. Ent. **4.**—*H. congoensis* Belg. Congo p. 8, *fasciculata* S. Rhodesia p. 10 **spp. n.**, SNYDER Amer. Mus. Novit. no. 1608.

Hylemyia echinata all stages pp. 591–595 figs., MILES Bull. ent. Res. **43.**—*H.* (*Hylemya*) revision of some N. American spp. (concl.) pp. 10–19 ; (*Delia*) *setiseriata* p. 10, (*D.*) *simulata* p. 11, (*D.*) *vesicata* p. 12, (*Pegohylemyia*) *abietis* p. 107 **spp. n.** U.S.A. figs., HUCKETT Bull. Brooklyn ent. Soc. **48.**

Lasiops survey of Swedish spp. pp. 161–167 [translated from Swedish by E. C. M. d'Assis-Fonseca], RINGDAHL J. Soc. Brit. Ent. **4.**

Limnophora vanemdeni **sp. n.** Liberia p. 4, SNYDER Amer. Mus. Novit. no. 1608.

Lyperosia exigua early stages p. 190 figs., KANO Jap. J. exp. Med. **23.**

Musca taxonomic study of *domestica* and its forms pp. 442–464 figs., SACCÀ R.C. Ist. sup. Sanit. **16**; also in Riv. Parassit. **14** : 97–114 figs.—*M. domestica*, *autumnalis* distinguishing characters p. 422, VOCKEROTH Canad. Ent. **85.**—*M. domestica* & *vicina* in Japan pp. 59–63, HORI Oyo-Dobuts.-Zasshi **16** 1950.

Mydaea notoseta p. 14, *notonuda* p. 17, *melsetter* p. 18 **spp. n.** S. Rhodesia, SNYDER Amer. Mus. Novit. no. 1608.

Pectiniseta equiseta **sp. n.** Liberia p. 1, SNYDER t.c.

Pegohylemyia tuxeni **sp. n.** Iceland p. 463 figs., RINGDAHL Ent. Medd. **26.**

Pegomyia ruficauda **sp. n.** Iceland p. 462, RINGDAHL t.c.

Phaonia colbrani **sp. n.** Scotland p. 174, COLLIN J. Soc. Brit. Ent. **4.**

Philornis blanchardi **sp. n.** Brazil p. 141 figs., ALBUQUERQUE Rev. brasil. Biol. **13.**

Phorbia sepia Meig. (=*Aricia remotella* Zett.) p. 667 figs., HENNIG Beitr. Ent. **3.**

Pyrellia paraethiops **sp. n.** Fr. Guinea p. 162, SÉGUY Mém. Inst. franç. Afr. noire no. 19 1952.

Spilogona liberia **sp. n.** Liberia p. 6, SNYDER Amer. Mus. Novit. no. 1608.

Stomoxys calcitrans p. 188, *indica* p. 189 early stages figs., KANO Jap. J. exp. Med. **23.**

Xenomorellia characters p. 1; *montanhesa* **sp. n.** Brazil p. 2; *holti* further description p. 5 figs., ALBUQUERQUE Bol. Mus. nac. R. de J. (N.S.) Zool. no. 116 1952.

CORDYLURIDAE (SCATOPHAGIDÆ).

Acerocnema paradoxopyga **sp. n.** N. Russia p. 405 fig., SHTAKEL'BERG Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Microprosopa portenkoi **sp. n.** N. Russia p. 406 figs., SHTAKEL'BERG t.c.

Pupipara.

HIPPOBOSCIDAE.

Structure, physiology and bionomics of Hippoboscids of mammals and birds, BEQUAERT Ent. amer. **32** : 1–442, 20 figs.

Hippoboscids of Parc nat. Albert, Belg. Congo, BEQUAERT Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79 : 89–93.

NYCTERIBIIDAE.

Nycteribiids of Parc nat. Albert, Belg. Congo, BEQUAERT Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79 : 94.

Value of genitalia of Nycteribiids in systematics, THEODOR Trans. 9th int. Congr. Ent. Amsterdam 1951 **2** : 27–33, 6 figs.

Basilia neamericana **sp. n.** Argentina p. 102; *silvae* Brèthes, *plaumanni* Scott distinct spp. not synonyms of *mexicana* p. 110 figs., SCHUURMANS STEKHOVEN Acta zool. lilloana **12** 1952.—*B. calverti* **sp. n.** Colorado p. 22 figs., FOX & STABLER J. Parasit. **39.**—*B. mirandaribeiroi, currani, carteri, travassosi, bellardii, speiseri, juquiensis, hughscotti, romañai* see *Guimarãesia.*

Cyclopodia biannulata **sp. n.** Nigeria p. 59 figs., OLDROYD Proc. R. ent. Soc. Lond. (B) **22.**

Guimarãesia **gen. n.** for *Basilia mirandaribeiroi* Guim., *currani* G., *carteri* Scott, *travassosi* G., *bellardii* Rond., *speiseri* Rib., *juquiensis* Guim., *hughscotti* Guim., *romañai* Del Ponte p. 109; *guimarãesi* **sp. n.** Brazil p. 113; *romañai* re-description p. 551 figs., SCHUURMANS STEKHOVEN Acta zool. lilloana **12** 1952.

Listropodia latreillei **subsp. n.** *africana* Tunis p. 32; *capensis* S. Africa p. 34, *formosana* Formosa p. 35 **spp. n.** figs., KARAMAN Acta Mus. serb. merid. **1** 1939.

STREBLIDAE.

Ascodipteron speiserianum morphology pp. 479–487 figs., SCHUURMANS STEKHOVEN Acta zool. lilloana **10** 1952.

Muscoidea Acalyptrata.

HELOMYZIDAE.

Trichoscelis phylacis **sp. n.** Mauretania p. 66, SÉGUY Encycl. ent. (B) II Dipt. **11.**

HETERONEURIDAE (CLUSIIDAE).

Clusiaria facialis **sp. n.** Br. Isles p. 139, COLLIN J. Soc. Brit. Ent. **4.**

THYREOPHORIDAE.

Bocainamyia **gen. n.** p. 109, *necrophila* **sp. n.** Brazil p. 110 figs., ALBUQUERQUE Rev. brasil. Biol. **13.**

LAUXANIIDAE (SAPROMYZIDAE) (including CELYPHIDAE).

Celyphidae of Parc nat. Albert, Belg. Congo, VANSCHUYTBROECK Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79 : 87–88.

Celyphidae of Parc nat. Upemba, Belg. Congo (key to genn. p. 112) VANSCHUYTBROECK Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 17 : 111–116.

Cephaloconus tenebrosus re-description p. 77 figs., LOWER Mem. Qd Mus. **13.**

Chamaecelyphus key to African spp. p. 113 ; *upembaensis* **sp. n.** Belg. Congo p. 115, VANSCHUYTBROECK Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 17.

Homoneura nubila **sp. n.** New South Wales p. 75 figs., LOWER Mem. Qd Mus. **13.**

Sapromyza hardii p. 73, *venusta* p. 74 **spp. n.** Australia figs., LOWER t.c.

LONCHAEIDAE.

Revision of British (and notes on other) spp. of Lonchaeidae, COLLIN Trans. Soc. Brit. Ent. **11** : 181–207, 24 figs.

Dasyops key to British spp. p. 184 ; *facialis* **n. n.** for *albiceps* Frey nec Mall. p. 185 ; *occulta* **sp. n.** Br. Isles p. 186 figs., COLLIN Trans. Soc. Brit. Ent. **11.**

Earomyia key to British spp. p. 205 ; *virilis* p. 206, *schistopyga* p. 207 **spp. n.** Brit. Isles figs., COLLIN t.c.

Lonchaea key to British spp. p. 187 ; *nitens* re-description ; *albigena* Germany p. 190, *patens* p. 192, *lauta* p. 193, *limatula* p. 196, *contigua* p. 197, *britteni*, *postica* p. 198, *ultima* p. 202, *obscuritarsis* p. 203, *laxa* p. 204 Brit. Isles **spp. n.** figs., COLLIN t.c.—*L. claripennis* further description p. 56, SÉGUY Encycl. ent. (B) II Dipt. **11.**

CHAMAEMYIIDAE (OCHTHIPHILIDAE).

Leucopis gilva **sp. n.** Mauretania p. 67, SÉGUY Encycl. ent. (B) II Dipt. **11.**

TRYPETIDAE.

Supplement to 1949 catalogue of Neotropical Trypetidae, ACZÉL 1952 Acta zool. lilloana **12** : 117–133.

Key to Neotropical genn. of Trypetini, ACZÉL 1952 Acta zool. lilloana **12** : 254.

Fruit flies in the U.S. National Museum, I, II, DA COSTA LIMA An. Acad. bras. Cienc. **25** : 151–152, 1 pl., 153–155, 3 pls.

Trypetidae of Fukien, II, HERING Bonn. zool. Beitr. **4** : 345–347, 3 figs.

Trypetids of New Guinea, HERING Treubia **21** : 507–524, 10 figs.

List of Trypetids of Madagascar, PAULIAN Mém. Inst. sci. Madagascar (E) **3** : 1–7, figs.

Afrodacus tigrinus **sp. n.** Queensland p. 339 fig., MAY Qd J. agric. Sci. **9** 1952.

Agaristina **gen. n.**, *picea* **sp. n.** New Guinea p. 514 fig., HERING Treubia **21.**

Agnostophana **gen. n.** p. 510 (further description p. 523), *veterrima* **sp. n.** New Guinea p. 512 figs., HERING t.c.

Anastrepha revision of spp. of Venezuela pp. 109–146 (key p. 116) ; *elongata* **sp. n.** Venezuela p. 131 figs., YEPEZ An. Univ. Venezuela **33.**—*A. serpentina* all stages p. 150 figs., BURGERS Natuurwet. Stud. Suriname no. 8.

Anomoea (*Phagocarpus*) *curvivenis*, (*P.*) *melanopoda* **spp. n.** New Guinea p. 522 figs., HERING Treubia **21.**

Callistomyia flavilabris **sp. n.** New Guinea p. 513 fig., HERING t.c.

Ceratitis key to known spp. p. 3 figs., PAULIAN Mém. Inst. sci. Madagascar (E) **3.**

Chaetostoma mundum **sp. n.** Japan p. 19 figs., ITO Bull. Naniwa Univ. (B) **2** 1952.—*C. admirandum* **sp. n.** Fukien p. 346 fig., HERING Bonn. zool. Beitr. **4.**

Cryptoplagia **gen. n.**, *cuculiformis* **sp. n.** Peru p. 265 figs., ACZÉL Acta zool. lilloana **12** 1952.

Daculus toxopeusi **sp. n.** New Guinea p. 510 fig., HERING Treubia **21**.

Dirioxa setinervis **sp. n.** New Guinea p. 520 fig., HERING t.c.

Euleia setibasis **sp. n.** Fukien p. 346 fig., HERING Bonn. zool. Beitr. **4**.

Euribia solstitialis early stages p. 108 figs., MELLINI Boll. Ist. Ent. Univ. Bologna **19** 1952.

Haywardina **gen. n.** for *Tomoplagia cuculi* Hend. p. 258 figs., ACZÉL Acta zool. lilloana **12** 1952.

Hexachaeta shannoni **sp. n.** Brazil p. 154, DA COSTA LIMA An. Acad. bras. Ciênc. **25**.

Mellesis esakii **sp. n.** Japan p. 410 figs., SHIRAKI Zool. Mag., Tokyo **51** 1939.

Paracantha revision of some American spp. (key p. 215) pp. 199–240; *dentata* Perry p. 224, *haywardi* Argentina p. 237 **spp. n.**; *gentilis* Hering (=*mimetica* Mall., *m.* var. *elongata* Mall.); *mexicana* Mall. reduced to var. of *g.* p. 233 figs., ACZÉL Acta zool. lilloana **10** 1952.

Paratephritis senecionis **sp. n.** Japan p. 22 figs., ITO Bull. Naniwa Univ. (B) **2** 1952.

Pardalaspis giffardi re-description p. 6 figs., PAULIAN Mém. Inst. sci. Madagascar (E) **3**.

Phasca **gen. n.**, *bidens* **sp. n.** New Guinea p. 518 fig., HERING Treubia **21**.

Pseudacidia disjuncta p. 20, *egregia* p. 21 **spp. n.** Japan figs., ITO Bull. Naniwa Univ. (B) **2** 1952.

Pseudophorellia stonei **sp. n.** Barro Colorado p. 151 figs., DA COSTA LIMA An. Acad. bras. Ciênc. **25**.

Rhagoletis ferruginea re-description p. 271 figs., ACZÉL Acta zool. lilloana **12** 1952.

Rioxina acanthoneurides **sp. n.** New Guinea p. 516 fig., HERING Treubia **21**.

Strumeta diaphana **sp. n.** New Guinea p. 508 fig., HERING t.c.—*S. alyxiae* p. 335, *notatagena* p. 337 **spp. n.** Queensland figs., MAY Qd J. agric. Sci. **9** 1952.

Tephritis majuscula **sp. n.** Japan p. 1 figs., HERING & ITO Mushi **25**.

Terellia fuscicornis all stages, morphology pp. 412–428 figs., MARTELLI Redia **37** 1952.

Tomoplagia cuculi see *Haywardina*.

Trupanea revision of Neotropical spp. of *diespasmena* group pp. 273–286, key to subgenn. p. 274; (*T.*) *aldrichi* Peru p. 278, (*T.*) *brasiliensis* Brazil p. 279 **spp. n.** figs., ACZÉL Dusenia **4**.

Trypeta quadrum see *Drosophila* (Drosophilidae).

Vidalia spadix ♂ p. 345 fig., HERING Bonn. zool. Beitr. **4**.

Xanthaciura revision of American spp. (key p. 253) pp. 245–278; *flavicauda* Nicaragua p. 260, *stonei* Panama p. 271 **spp. n.** figs., ACZÉL Acta zool. lilloana **10** 1952.

OTITIDAE (ORTALIDAE, PLATYSTOMIDAE, PYRGOTIDAE, TANYPEZIDAE, RICHARDIIDAE, PHYTALMIIDAE, ULIDIIDAE).

Catalogue of American Pterocallinae, ACZÉL 1951 Acta zool. lilloana **11**: 397–433.

Chrysomyza prema **sp. n.** Fr. Guinea p. 157, SÉGUY Mém. Inst. franç. Afr. noire no. 19 1952.

Empyelocera berlandi **sp. n.** Mauretania p. 65, SÉGUY Encycl. ent. (B) II Dipt. **11**.

Pseudorichardia key to spp. p. 63; *bezziana* **sp. n.** New Hebrides p. 64; *interrupta* Bez. a sp. not var. of *flavitarsis* Macq. p. 66 fig., STEYSKAL Occ. Pap. Bishop Mus. **21** 1952.

Ramuliseta lindneri **sp. n.** E. Africa p. 325 fig., KEISER Bonn. zool. Beitr. **3**.

MICROPEZIDAE (NERIIDAE, TYLIDAE).

Revision of Argentine Tylidae (keys p. 516) and Neriidae (keys p. 569), ACZÉL 1951 Acta zool. lilloana **11**: 515–569, figs.

Eoneria **gen. n.** p. 570, *blanchardi* **sp. n.** N. Argentina p. 571 figs., ACZÉL Acta zool. lilloana **11** 1951.

CHLOROPIDAE (OSCINIDAE).

Key to larvae of Chloropidae, D'AGUILAR Bull. Soc. ent. Fr. **58** : 72–76, 1 fig.

Calamoncosis minima larva p. 72 fig., D'AGUILAR Bull. Soc. ent. Fr. **58**.

Epimadiza delattrei **sp. n.** Ivory Coast p. 48, SÉGUY Encycl. ent. (B) II Dipt. **11**.

Siphonella pauliani **sp. n.** Madagascar p. 64, SÉGUY t.c.

PSILIDAE.

Loxocera revision of N. American spp. pp. 99–114, key p. 101 ; *californica* **sp. n.** California p. 106 ; *cylindrica* geographical variation p. 112 figs., CAPELLE Ann. ent. Soc. Amer. **46**.

EPHYDRIDAE
(including CANACEIDAE).

Hydrellia sasakii **sp. n.** Japan p. 448 figs., YUASA & ISITANI Zool. Mag., Tokyo **51** 1939.

Macrocanace littorea re-description p. 274 ; *antipoda* **sp. n.** Antipodes I. p. 276 figs., HARRISON Trans. roy. Soc. N.Z. **81**.

DROSOPHILIDAE.

Asteia levis re-description p. 239 figs., DUMBLETON Trans. roy. Soc. N.Z. **81**.

Aulacigaster leucopeza early stages p. 78 figs., ROBINSON Proc. R. ent. Soc. Lond. (A) **28**.

Cryptochaetum mimeuri **sp. n.** Morocco p. 46, SÉGUY Encycl. ent. (B) II Dipt. **11**.

Drosophila taxonomic status and distribution of N. & Centr. American spp. of *cardini* group pp. 343–358, key p. 344 ; *acutilabella* Cuba, Florida p. 345, *parthenogenetica* Mexico p. 347 **spp. n.** figs., STALKER Ann. ent. Soc. Amer. **46**.—*D.* group *obscura* Japanese spp. pp. 283–287 figs., MORIWAKI, OKADA, OHBA & KUROKAWA Zool. Mag., Tokyo **61** 1952.—*D. calloptera* Schin. (=*Paramycodrosophila tephritoptera* Hend. p. 291) revision of group (key p. 299) pp. 291–314 ; *quadrum* Wied. from *Trypeta* p. 303 ; *atrata* **sp. n.** Brazil p. 307 ; *poecila* **n. n.** for *poecilopterа* Duda (from *Paramycodrosophila*) preoc. p. 311 figs., BURLA & PAVAN Rev. brasil. Biol. **13**.—*D.* (*Pholadoris*) *rufifrons* Loew (=*nitens* Buzz.), (*P.*) *deflexa* Duda (=*guyénoti* Burla) p. 167, characters p. 166, HERTING Beitr. Ent. **3**.—*D. gaucha* **sp. n.** Brazil p. 205 figs., JAEGER & SALZANO Rev. brasil. Biol. **13**.

Paramycodrosophila tephritoptera see *Drosophila calloptera* ; *poecilopterа* see *D. poecila*.

Scaptomyza key to British spp. p. 149 ; *trochanterata* **sp. n.** Scotland p. 150, COLLIN Entomologist **86**.

MILICHIIDAE.

Australimyza **gen. n.**, *anisotomae* **sp. n.** Antipodes I. p. 277 figs., HARRISON Trans. roy. Soc. N.Z. **81**.

Costalima **gen. n.**, *myrmicola* **sp. n.** Brazil p. 40, SABROSKY Ent. News **64**.

Desmometopa anuda see *Neophyllomyza*.

Eusiphona flava **sp. n.** Utah p. 38, SABROSKY Ent. News **64**.

Neophyllomyza anuda Curr. from *Desmometopa* p. 40, SABROSKY t.c.

Siphonomyiella see *Stomosis*.

Stomosis Mel. (=*Siphonomyiella* Frey) p. 39, SABROSKY Ent. News **64**.

AGROMYZIDAE (PHYTOMYZIDAE).

Some additions and corrections to the list of North American Agromyzidae, FRICK Canad. Ent. **85** : 68–76.

Agromyzids from Iceland, RYDÉN Ent. Medd. **26** : 465–468.

Agromyzid spp. of Zetterstedt & Fallén, RYDÉN Opusc. ent. **18** : 13–16.

Notes on types of some American Agromyzidae, SHEWELL Canad. Ent. **85** : 462–470, 7 figs.

Agromyza nigrociliata larva p. 189 figs., HERING Tijdschr. PlZiekt. **59**.—*A. reptans* Fall. (=*dubitata* Mall.) p. 69, FRICK Canad. Ent. **85**.—*A. burgessi* see *Melanagromyza* ; *indecora, albidohalterata, calyptrata, pleu-*

ralis (*clara*), *subinfumata* see *Phytobia* ; *nitida* see *Phytagromyza*; *minima* see *Melanagromyza* ; *dorsocentralis*, *neptis* see *Phytobia*.

Dizygomyza (*D.*) *iridicola* **sp. n.** Japan p. 54 figs., KOIZUMI Sci. Rep. Fac. Agric. Okayama Univ. no. 2.—*D. cepae* all stages p. 251 figs., NIETZKE Z. angew. Ent. **35.**

Haplomyza minuta Frost from *Phytomyza* ; *togata* Mel. (=*P. minuta* Fr.) p. 73, FRICK Canad. Ent. **85.**

Liriomyza congesta Beck. (=*trifolii* Burg.) p. 72, FRICK t.c.—*L. discalis* see *Phytoliriomyza*.

Melanagromyza minima Mall. (from *Agromyza*) a valid sp. not syn. of *Ophiomyia maura* M. p. 468, SHEWELL Canad. Ent. **85.**—*M. tokunagai* **sp. n.** Japan p. 10 figs., SASAKAWA Sci. Reps Saikyo Univ., Agric. no. 4.—*M. lappivora* **sp. n.** Japan p. 46 figs., KOIZUMI Sci. Rep. Fac. Agric. Okayama Univ. no. 3.—*M. splendida* **sp. n.** Hawaii p. 207, FRICK Proc. Hawaii. ent. Soc. **15.**—*M. burgessi* Mall. from *Agromyza* p. 69, FRICK Canad. Ent. **85.**

Odinia boletina re-description p. 1 figs., KATO Insecta matsum. **18** 1952.

Ophiomyia scaevolae **sp. n.** Hawaii p. 209, FRICK Proc. Hawaii. ent. Soc. **15.**

Phytagromyza nitida Mall. from *Agromyza* p. 74, FRICK Canad. Ent. **85.**

Phytobia posticata Meig. to subgen. *Nemorimyza* from subgen. *Phytobia* ; (*P.*) *indecora* Mall., (*Cephalomyza*) *albidohalterata* Mall. p. 69, (*Trilobomyza*) *calyptrata* Hend. p. 70, (*T.*) *pleuralis* Mall. (=*Agromyza clara* Mel.), (*Praspedomyza*) *subinfumata* Mall. p. 71 from *Agromyza* ; (*Poëmyza*) *lateralis* Macq. (=*coquilletti* Mall.), (*Calycomyza*) *solidaginis* Kalt., (*C.*) *verbenae* Her. p. 70, (*Praspedomyza*) *morio* Bris., *morosa* Meig. p. 71 from *Dizygomyza*, FRICK t.c.—*P.* (*P.*) *dorsocentralis* Frost, (*Poëmyza*) *neptis* Lw. from *Agromyza* ; *marginata* Lw. in subgen. *Poëmyza* not *Dizygomyza* p. 468, SHEWELL Canad. Ent. **85.**—*P.* (*Praspedomyza*) *cocculi* **sp. n.** Hawaii p. 210, FRICK Proc. Hawaii. ent. Soc. **15.**

Phytoliriomyza key ; *montana* **sp. n.** Hawaii p. 213, FRICK t.c.—*P. discalis* Mall. from *Liriomyza* p. 468, SHEWELL Canad. Ent. **85.**

Phytomyza key to Japanese spp. p. 12 ; *angelicae* **subsp. n.** *kibunensis* p. 13 ; *japonica* p. 15, *paniculatae* p. 18 **spp. n.** Japan figs., SASAKAWA Sci. Reps Saikyo Univ., Agric. no. 4. —*P. peucedani* **n. n.** for *marginella* Hend. nec Fall. p. 15 ; *kemneri* **n. n.** for *stylata* Zett. nec Mg. ; *zetterstedtiana* **n. n.** for *zetterstedti* Rydén preocc. p. 16, RYDÉN Opusc. ent. **18.** —*P. unedo* **sp. n.** Morocco p. 72, SÉGUY Encycl. ent. (B) II Dipt. **11.**—*P. lindrothi* p. 465, *hedingi* p. 467 **spp. n.**; *ranunculi* **var. n.** *islandica* p. 466 Iceland, RYDÉN Ent. Medd. **26.**—*P. minuta* see *Haplomyza* ; *jannonei* see *Pseudonapomyza dianthicola*.

Pseudonapomyza dianthicola Vent. (=*Phytomyza jannonei* Ség.) all stages, morphology pp. 69–98 figs., CIAMPOLINI Redia **37** 1952.

Schildomyia yushimai **sp. n.** Japan p. 4 figs., KATO Insecta matsum. **18** 1952.

Traginops orientalis **subsp. n.** *naganensis* Japan p. 6 figs., KATO t.c.

BORBORIDAE (SPHAEROCERIDAE).

Ceroptera (*Ceropterella* **subgen. n.**) *nitidosa* Mozambique p. 5, (s. str.) *catharsii* Nigeria p. 7 **spp. n.** figs., RICHARDS Proc. R. ent. Soc. Lond. (B) **22.**

Ceropterella **subgen. n.** (type *nitidosa* sp. n.) see *Ceroptera*.

SIPHONAPTERA.

Systematic notes on Rhopalopsyllinae, BARRERA 1952 Ciencia, Mexico **12** : 187–194, 6 figs.

Illustrated catalogue of the Rothschild collection of fleas in the Br. Mus. (Nat. Hist.), with keys and short descriptions, HOPKINS & ROTHSCHILD Vol. 1 Tungidae, Pulicidae, xv & 361 pp. 45 pls. 466 figs.

Fleas of Japan and Korea, JAMESON [3+] 21 pp. 26 pls.

List of Siphonaptera from America, N. of Mexico, JELLISON, LOCKER & BACON J. Parasit. **39** : 610–618.

Siphonaptera from Netherlands New Guinea, pt. 1, SMIT Amer. Mus. Novit. no. 1638 : 1–53, 75 figs.

Systematic notes on eyeless fleas, TRAUB J. Wash. Acad. Sci. **43** : 352–353.

Acanthopsylla J. & R. (=*Glauertidos* Roths.) p. 52 ; *richardsoni* p. 35, *guba* p. 40, *divergens* p. 43, *bella* p. 45 **spp. n.** New Guinea figs., SMIT Amer. Mus. Novit. no. 1638.

Amphipsylla neotomae see *Malaraeus*.

Aptilopsylla carlsbadensis see *Sternopsylla texana*.

Astivalius **gen. n.** p. 25, *microphthalmus* **sp. n.** New Guinea p. 26 figs., SMIT Amer. Mus. Novit. no. 1638.

Barreropsylla **gen. n.** p. 181, *excelsa* **sp. n.** Argentina p. 183 figs., JORDAN Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Caenopsylla assimulata, *mira* compared p. 211 figs., SMIT Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Ceratophyllus saundersi see *Opisocrostis bruneri*.

Chaetopsylla caucasica **sp. n.** N.W. Caucasus p. 190 figs., SMIT Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Chiastopsylla gariepensis p. 17, *carus* p. 18 **spp. n.** S. Africa figs., DE MEILLON & HARDY J. ent. Soc. S. Afr. **16**.

Cleopsylla monticola **sp. n.** Ecuador p. 193 figs., SMIT Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Ctenocephalides felis, *canis* distinguishing characters p. 338 fig., FOX Amer. J. trop. Med. Hyg. **2**.—*C. caprae* **sp. n.** Azerbaijan p. 191 fig., IOFF Dokl. Akad. Nauk SSSR (N.S.) **89**.

Dorcadia ioffi **sp. n.** Turkestan p. 187 figs., SMIT Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.

Ernestinia **gen. n.** p. 11, *eximia* **sp. n.** New Guinea p. 12 figs., SMIT Amer. Mus. Novit. no. 1638.

Foxella macgregori **sp. n.** Mexico p. 157 figs., BARRERA Ciencia, Mexico **13**.

Gephyropsylla **subgen. n.** (type *klagesi* Roths.) see *Tiamastus*.

Glauertidos see *Acanthopsylla*.

Hechtiella **subgen. n.** (type *lakoi* Guim.) see *Tiamastus*.

Hollandipsylla **gen. n.** p. 346, *neali* **sp. n.** N. Borneo p. 348 figs., TRAUB J. Wash. Acad. Sci. **43**.

Hoplopsyllus foxi Ewing (=*tenuidigitus* Stew.) p. 611, JELLISON, LOCKER & BACON J. Parasit. **39**.

Hystrichopsylla hubbardi **sp. n.** Oregon p. 119 figs., AUGUSTSON Bull. S. Calif. Acad. Sci. **52**.

Ischnopsyllus consimilis ♂ p. 206 figs., SMIT Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.—*I. noctilionis* see *Rothschildopsylla*.

Malaraeus neotomae Fox from *Amphipsylla* p. 615, JELLISON, LOCKER & BACON J. Parasit. **39**.

Megarthroglossus jamesoni **sp. n.** Nevada p. 202 figs., SMIT Bull. Brit. Mus. (Nat. Hist.) Ent. **3**.—*M. muiri* **sp. n.** p. 122 ; *divisus* **subsp. n.** *sierrae* p. 125 California figs., AUGUSTSON Bull. S. Calif. Acad. Sci. **52**.

Meringis systematic notes on California spp. pp. 110–118 ; *californicus* p. 111, *deserti* p. 114 **spp. n.** U.S.A. figs., AUGUSTSON t.c.—*M. hubbardi* Kohls (=*walkeri* Hubb., *jewetti* Hubb.) pp. 397–399 figs., SMIT Ent. Ber. **14**.—*M. rectus* **sp. n.** U.S.A. p. 606 figs., MORLAN J. Parasit. **39**.

Neopsylla sasai **sp. n.** Japan p. 459 figs., JAMESON & KUMADA J. Parasit. **39**.

Nosopsyllus ceylonensis **sp. n.** Ceylon p. 150 figs., SMIT Ceylon J. Sci. (B) **25**.—*N. fasciatus* author's name Bosc, date 1800, original description pp. 34–35, SMIT J. Soc. Bibl. nat. Hist. **3**.

Opisocrostis bruneri Bak. (=*Ceratophyllus saundersi* Jord.) p. 616, JELLISON, LOCKER & BACON J. Parasit. **39**.

Opisodasys nesiotus August. reduced to subsp. of *keeni* Baker p. 617, JELLISON, LOCKER & BACON J. Parasit. **39.**

Palaeopsylla nippon **sp. n.** Japan p. 456 figs., JAMESON & KUMADA J. Parasit. **39.**—*P. similis* **subsp. n.** *peusi* E. Serbia p. 204 figs., SMIT Bull. Brit. Mus. (Nat. Hist.) Ent. **3.**

Plocopsylla phyllisae **sp. n.** Ecuador p. 197 figs., SMIT t.c.

Polygenis re-description p. 190, BARRERA Ciencia, Mexico **12** 1952.—*P. klagesi*, *lakoi* see *Tiamastus*.

Praopsylla powelli ♂ p. 20 figs., DE MEILLON & HARDY J. ent. Soc. S. Afr. **16.**

Ralipsylla Ioff a subgen. of *Rectofrontia*, q.v.

Rectofrontia Wagn. *Ralipsylla* Ioff a subgen. p. 84, TRAUB J. Wash. Acad. Sci. **43.**

Rothschildopsylla **gen. n.** for *Ischnopsyllus noctilionis* C. Lima p. 109, GUIMARÃES Pap. Dep. Zool. Sec. Agric. S. Paulo **11.**

Sigmactenus toxopeusi **sp. n.** New Guinea p. 3 figs., SMIT Amer. Mus. Novit. no. 1638.

Sternopsylla texana Fox (= *Aptilopsylla carlsbadensis* Ewing) p. 618, JELLISON, LOCKER & BACON J. Parasit. **39.**

Tarsopsylla coloradensis Baker a subsp. of *octodecimdentata* Kol.; *o.* characters p. 9 figs., SMIT Scot. Nat. **65.**

Tiamastus klagesi Roths., *lakoi* Guim. from *Polygenis* p. 189; re-description; (*Gephyropsylla* p. 190, *Hechtiella* p. 191 **subgenn. n.**) figs., BARRERA Ciencia, Mexico **12** 1952.

Traubia **gen. n.**, *egregia* **sp. n.** New Guinea p. 19 figs., SMIT Amer. Mus. Novit. no. 1638.

Wenzella **gen. n.** p. 77, *obscura* **sp. n.** Guatemala p. 78 figs., TRAUB J. Wash. Acad. Sci. **43.**

Xenopsylla conformis **subsp. n.** *dipodis* Turkmenistan p. 190 fig., IOFF Dokl. Akad. Nauk SSSR (N.S.) **89.**

Zyx **gen. n.** p. 30, *notabilis* **sp. n.** New Guinea p. 31 figs., SMIT Amer. Mus. Novit. no. 1638.

HEMIPTERA.

List of Hemiptera of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl.: 108–121, figs.

Additions to list of Hemiptera from Palestine, LINNAVUORI Ann. ent. fenn. **19**: 119–124, 1 fig.

List and distribution of Sardinian Hemiptera, SERVADEI 1952 Redia **37**: 443–478.

Annotated list of Hemiptera of Alberta, STRICKLAND Canad. Ent. **85**: 193–124.

Heteroptera.

Additional records of aquatic Hemiptera from Arabia, BROWN Ann. Mag. nat. Hist. (12) **6**: 432–433.

Aquatic Hemiptera from Syria and Iraq, BROWN Ann. Mag. nat. Hist. (12) **6**: 579–600, 3 figs.

Guérin-Ménéville's "Atlas Voyage La Coquille" pls. xi & xii and Icon. Règne Anim. pl. 55 published 1831, resulting in changes in priority of many names in Heteroptera, DUPUIS Bull. Soc. zool. Fr. **77**: 447–454.

Value of male genitalia of Heteroptera in systematics, DUPUIS Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 7–11.

Aquatic Hemiptera of S.E. Louisiana, exclusive of Corixids (key p. 305), ELLIS 1952 Amer. Midl. Nat. **48**: 302–329, 1 fig.

Synopsis of Heteroptera of Hungary and neighbouring areas, I, Brachyplatidae, Cydnidae, HALÁSZFY Ann. hist.-nat. Mus. hung. (N.S.) **4**: 187–195, 8 figs.

Heteroptera of Israel, HOBERLANDT 1952 Acta ent. Mus. nat. Pragae **27** no. 381: 5–34, 19 figs.

Heteroptera from Shaqlawa, S. Kurdistan, HOBERLANDT Beitr. Ent. **3**: 377–384, 6 figs.

Heteroptera of Siwa Oasis, Libyan Desert, HOBERLANDT Bull. Soc. Fouad ler Ent. **37** : 359–370, 5 figs.

True Hemiptera of European USSR (keys p. 77), KIRICHENKO 1951 Opred. Faune SSSR **42** : 1–423, 416 figs.

New & little known Heteroptera of Tadzhikistan, KIRICHENKO 1952 Trud. zool. Inst. Akad. Nauk SSSR **10** : 140–198, 47 figs.

Additions to catalogue of Swedish Heteroptera, OSSIANNILSSON Opusc. ent. **18** : 101–105.

Heteroptera of Algarve, Portugal, PISSARRO [?1953] Arq. Mus. Bocage **22** : 111–130.

Hydrocorisae of Réserve du Nimba, Fr. Guinea, POISSON 1952 Mém. Inst. franç. Afr. noire no. 19 : 277–287, 13 figs.

Review of Heteroptera known from Egypt, PRIESNER & ALFIERI Bull. Soc. Fouad ler Ent. **37** : 1–119.

Catalogue of Heteroptera of High Jeseník, STEHLÍK 1952 Acta Mus. Morav. **37** : 182–213.

Heteroptera of Hammelburg region STICHEL [4] pp.

Terrestrial Heteroptera of Réserve du Nimba, Fr. Guinea, VILLIERS 1952 Mém. Inst. franç. Afr. noire no. 19 : 289–309.

Some Heteroptera of Cyprus, WAGNER Comment. biol. **13** no. 14 : 1–17, 50 figs.

Key to famm. of New Zealand Heteroptera, WOODWARD Trans. roy. Soc. N.Z. **80** : 300.

CYDNIDAE (THYREOCORIDAE).

Cydnidae of New Zealand (key p. 310), WOODWARD Trans. roy. Soc. N.Z. **80** : 315.

Aethus characters p. 35 ; *dauricus* Dauria p. 36, *ahngeri* Transcaspia etc. p. 37 **spp. n.**; *komarovi* characters p. 38 ; *flavicornis* **subsp. n.** *longispinis* Caucasus, Afghanistan etc. p. 42 figs., WAGNER Acta ent. Mus. nat. Pragae **27** 1952 no. 382.

Geotomus characters p. 459; *brunnipennis* Dalmatia, Corsica p. 466, *intrusus* Egypt, Algiers p. 467, *longicornis* Spain p. 468, *simillimus* Palestine p. 470 **spp. n.**; *elongatus* **subsp. n.** *angustus* N. Africa p. 471; *ciliatitylus* Sign. a subsp. of *caucasicus* p. 472 ; *laticollis* characters p. 473 ; key to European and Mediterranean spp. p. 474 figs., WAGNER Bull. Soc. Fouad ler Ent. **37**.

Ochetostethus sahlbergi **sp. n.** Egypt, Palestine etc. p. 42 ; key to spp. p. 45 figs., WAGNER Acta ent. Mus. nat. Pragae **27** 1952 no. 382.

Sehirus bicolor early stages p. 199 figs., VAN DINTHER Tijdschr. Ent. **96**.

PENTATOMIDAE, UROSTYLIDAE.

Revision of N. American Podopini (key p. 151), BARBER & SAILER J. Wash. Acad. Sci. **43** : 150–162, 57 figs.

Notes on some southern African Pentatomoidea, LESTON Ann. S. Afr. Mus. **41** : 48–60, 17 figs.

Suprageneric nomenclature of British Pentatomoidea, LESTON Ent. Gaz. **4** : 13–25.

Characters and status of Podopinae, LESTON J. Soc. Brit. Ent. **4** : 132–134.

Status and morphology of Acanthosomidae, LESTON Publ. cult. Cia Diamant. Angola no. 16 : 123–132, 11 figs.

Taxonomic characters of Pentatomoidea esp. Phloeidae (key p. 133), LESTON Rev. brasil. Biol. **13** : 121–140, 23 figs.

Pentatomidae of New Zealand (key p. 311), WOODWARD Trans. roy. Soc. N.Z. **80** : 315–321.

Acanthosoma stadleri **sp. n.** Germany p. [3], STICHEL Het. Umgebung Hammelburg 1946.

Alloeoglypta **gen. n.** p. 156, *pretiosa* (type) p. 157, *arnoldii* p. 158 **spp. n.** Tadzhikistan fig., KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Amaurochrous key p. 158; *dubius* Pal. de Beauv. (=*Podops peninsularis* Blatch.) p. 159; *brevitylus* (also Canada), *vanduzeei* p. 160, *ovalis, magnus* p. 162 **spp. n.** U.S.A. figs., BARBER & SAILER J. Wash. Acad. Sci. **43.**

Antestia clymeneis **varr. n.** *galtiei, flaviventris* Madagascar p. 371, FRAPPA Bull. écon. Madagascar (N.S.) no. 89 1934.

Antestiopsis orbitalis Westw. from *Pentatoma* p. 58, LESTON Ann. S. Afr. Mus. **41.**

Aspongopus nubilus see *Coridius.*

Capnoda macula-alba **sp. n.** Tadzhikistan p. 162 fig., KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Carpocoris (*Antheminia*) *oshanini* **sp. n.** Tadzhikistan p. 159, KIRICHENKO t.c.—*C.* (*Antheminia*) *absinthii* **sp. n.** S. France p. 309 figs., WAGNER Vie et Milieu **3** 1952.

Carvalhocoris **gen. n.** p. 46, *nigra* **sp. n.** Cape Province p. 47 figs., LESTON Ann. S. Afr. Mus. **41.**

Catadipson Bredd. (=*Irsmia* Cach.) p. 123, LESTON Publ. cult. Cia Diamant. Angola no. 16.

Cermatulus nasalis **subsp. n.** *rufusensis* Tasmania p. 41 figs., WOODWARD Proc. Linn. Soc. N.S.W. **78.**—*C. nasalis* **subsp. n.** *hudsoni* New Zealand p. 307 figs., WOODWARD Trans. roy. Soc. N.Z. **80.**

Coridius nubilus Westw. from *Aspongopus* p. 59, LESTON Ann. S. Afr. Mus. **41.**

Dalpada pavlovskii **sp. n.** Tadzhikistan, Afghanistan (cf. p. 152) p. 145 fig., KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Dolycoris baccarum early stages p. 81 figs., KOBAYASHI Sci. Reps Matsuyama agric. Coll. no. 11.

Elasmucha ferrugata early stages p. 84 figs., KOBAYASHI t.c.

Elvisura irrorata pygophore p. 49 figs., LESTON Ann. S. Afr. Mus. **41.**

Eurydema gender discussed pp. 557–561, DUPUIS Bull. Mus. Hist. nat., Paris (2) **24.**—*E. gussakovskii* **sp. n.** (with **var. n.** *bagradiformis* p. 161) Tadzhikistan p. 160 fig., KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Eusarcoris guttiger early stages p. 76 figs., KOBAYASHI Sci. Reps Matsuyama agric. Coll. no. 11.

Graphosoma italicum **f. n.** *soósi* Hungary pp. 399, 486, HALÁSZFY in SZÉKESSY Bátorliget élővilága.

Gynenica review of Ethiopian spp. pp. 179–195 (key p. 182, catalogue of World spp. p. 183); (*G.*) *basilewskyi* Belg. Congo p. 186, (*G.*) *malaisi* Br. Somaliland, (*Umgababa* **subgen. n.** p. 190) *capeneri* Natal, Zululand p. 191 **spp. n.**; (*G.*) *funerea* **subsp. n.** *machadoi* Angola p. 189 figs., LESTON Rev. Zool. Bot. afr. **48.**

Holcostethus manifestus **sp. n.** Tadzhikistan p. 154, KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Irsmia see *Catadipson.*

Iskenderia **gen. n.** p. 148, *fedtshenkoi* **sp. n.** Tadzhikistan p. 149, KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Lentimorpha **subgen. n.** (type *alpina* sp. n.) see *Rhopalimorpha.*

Lindbergicoris **n. n.** for *Platacantha* Lindb. nec H.-S., nec Mart. p. 157, LESTON Ent. mon. Mag. **89.**

Macroscytus japonensis early stages p. 73 figs., KOBAYASHI Sci. Reps Matsuyama agric. Coll. no. 11.

Menida violacea early stages p. 79 figs., KOBAYASHI t.c.

Mustha baranovi **sp. n.** Tadzhikistan p. 150 fig., KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Notopodops **gen. n.** p. 152, *omani* **sp. n.** Texas p. 154 figs., BARBER & SAILER J. Wash. Acad. Sci. **43.**

Odontoscelis fuliginosa larva p. 190 figs., JORDAN Zool. Anz. **151.**—*O. dorsalis* **f. n.** *carbonaria* Yugoslavia p. 23 figs., KORMILEV Ann. Mus. serb. merid. **1** 1939.—*O. seminitens* **sp. n.** Cyprus p. 1 figs., WAGNER Comment. biol. **13** no. 14.

Palomena viridissima early stages p. 201 figs., VAN DINTHER Tijdschr. Ent. **96.**

Pausias see *Piezodorus.*

Pentatoma orbitalis see *Antestiopsis.*

Picromerus bidens nymph p. 203 figs., VAN DINTHER Tijdschr. Ent. **96.**

Piezodorus Fieb. (=*Pausias* Jak.) p. 54; *hessei* **sp. n.** S.W. Africa p. 55 figs., LESTON Ann. S. Afr. Mus. **41.**—*P. rubrofasciatus* all stages p. 35 figs., JOSEPH Indian J. Ent. **15.**

Platacantha see *Lindbergicoris.*

Podops peninsularis see *Amaurochrous dubius*; *parvula* see *Weda.*

Rhopalimorpha p. 159, *obscura* p. 160 re-descriptions figs., PENDERGRAST Rec. Auckland [N.Z.] Inst. **4** 1952.—*R.* (*Lentimorpha* **subgen. n.** p. 302) *alpina* **sp. n.** New Zealand p. 304 figs., WOODWARD Trans. roy. Soc. N.Z. **80.**

Sciocoris consobrinus **sp. n.** Tadzhikistan p. 152, KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.—*S. ribauti* **sp. n.** S. France p. 39 figs., WAGNER Rev. franç. Ent. **20.**

Serbaninae **subfam. n.** p. 137 figs., LESTON Rev. brasil. Biol. **13.**

Umgababa **subgen. n.** (type *capeneri* sp. n.) see *Gynenica.*

Urolabida khasiana egg p. 137 fig., MILLER Ent. mon. Mag. **89.**

Urostylis farinaria egg p. 137 fig., MILLER t.c.—*U. striicornis* early stages p. 86 figs., KOBAYASHI Sci. Reps Matsuyama agric. Coll. no. 11.

Veterna sanguineirostris Thunb. (=*mimica* Dist., *patula* D.) p. 58, LESTON Ann. S. Afr. Mus. **41.**

Weda key p. 155; *parvula* Van D. from *Podops* (=*horvathi* Schout.) p. 155; *tumidifrons*, *stylata* U.S.A., *grossa* Mexico p. 156 **spp. n.** figs., BARBER & SAILER J. Wash. Acad. Sci. **43.**

COREIDAE.

Rhopalidae of France, DUPUIS Cah. Nat. (N.S.) **8**: 67–82, 42 figs.

Revised key to N. American Anisoscelini, HUSSEY Bull. Brooklyn ent. Soc. **48**: 33.

Alydus calcaratus, *eurinus* genitalia p. 315 figs., SAILER Proc. ent. Soc. Wash. **55.**

Bathysolen nubilus **f. n.** *grisescens* Yugoslavia p. 24 figs., KORMILEV Ann. Mus. serb. merid. **1** 1939.

Burtinus re-description p. 40; *luteomarginatus* **sp. n.** Porto Rico p. 42 figs., MALDONADO CAPRILES Proc. ent. Soc. Wash. **55.**

Ceraleptus brevicornis **sp. n.** Yugoslavia p. 25 figs., KORMILEV Ann. Mus. serb. merid. **1** 1939.

Coriomeris apricus **sp. n.** Tadzhikistan p. 168, KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Corizus altivolens **sp. n.** Tadzhikistan p. 170, KIRICHENKO t.c.

Leptoglossus revised key to N. American spp. p. 30; *occidentalis* position discussed p. 29, HUSSEY Bull. Brooklyn ent. Soc. **48.**

Maccevethus lutheri **sp. n.** USSR p. 388; *persicus* characters p. 390; key to spp. p. 392 figs., WAGNER Beitr. Ent. **3.**—*M. houškai* **sp. n.** Israel p. 15 fig., HOBERLANDT Acta ent. Mus. nat. Pragae **27** 1952 no. 381.

Mesocerus marginatus early stages p. 204 figs., VAN DINTHER Tijdschr. Ent. **96.**

ARADIDAE.

Acaricoris dureti **sp. n.** Argentina p. 125 fig., KORMILEV Dusenia **4.**

Aradus rysakovi **sp. n.** N. Caucausus p. 300 fig., KIRICHENKO Opred. Faune SSSR **42** 1951.

Dyhibogaster **gen. n.** p. 230, *incrustatus* **sp. n.** Brazil p. 231 figs., KORMILEV Dusenia **4.**

Glyptocoris confusus p. 233, *annulatus* p. 235 **spp. n.** Brazil figs., KORMILEV t.c.

Pictinus plaumanni p. 238, *montrouzieri* p. 239, *intermediarius* p. 241 **spp. n.** Brazil figs., KORMILEV t.c.

BERYTIDAE (NEIDIDAE).

Gampsocoris enslinie (also as *enslini*) **sp. n.** Asia Minor p. 165 fig., SEIDENSTÜCKER Rev. Fac. Sci. Univ. Istanbul (B) **18.**

Neides tipularius L. (=*favosus* Fieb.) pp. 372–377 fig., HERTEL Beitr. Ent. **3.**

Paranysius fallaciosus key to subspp. p. 19 (CHINA in HOBERLANDT); *f.* **subsp. n.** *israelensis* Israel p. 18, HOBERLANDT Acta ent. Mus. nat., Pragae **27** 1952 no. 381.

LYGAEIDAE (MYODOCHIDAE).

Acompus rufipes larva p. 185 figs., COBBEN Tijdschr. Ent. **96.**

Arrategma **subgen. n.** (type *sulcata* sp. n.) see *Truncala.*

Drymus major Lindb. a sp. not f. of *brunneus* p. 9 figs., WAGNER Comment. biol. **13** no. 14.

Emblethis pusillus **sp. n.** Egypt p. 59, PRIESNER & ALFIERI Bull. Soc. Fouad 1er Ent. **37.**

Engistus exsanguis **ff. n.** *crocea, viridis* Egypt p. 46, PRIESNER & ALFIERI t.c.

Eremocoris procerus **sp. n.** Tadzhikistan p. 176 fig., KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Exptochiomera confusa U.S.A., Centr. America, Ecuador, Cuba p. 21, *dissimilis* Florida, Puerto Rico, Cuba p. 22 **spp. n.**; key p. 23, BARBER Proc. ent. Soc. Wash. **55.**

Forsterocoris **gen. n.**, *bisinuatus* (type) p. 209, *sinuatus* p. 211 **spp. n.** New Zealand figs., WOODWARD Rec. Canterbury [N.Z.] Mus. **6.**

Geocoris curtulus, apprimus **spp. n.** Tadzhikistan p. 172, KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Gonianotus parilis **sp. n.** S. Ukraine p. 288 fig., KIRICHENKO Opred. Faune SSSR **42** 1951.

Henestaris cypriacus ♂ p. 4 figs., WAGNER Comment. biol. **13** no. 14.

Kleidocerys revision of spp. of U.S.A. (key p. 282) pp. 273–283; *geminatus* Horv. reduced to subsp. of *resedae*; *r.* **subsp. n.** *fuscomaculatus* p. 276; *ovalis* p. 278, *modestus* p. 279, *dimidiatus* p. 280 **spp. n.** U.S.A., BARBER Proc. ent. Soc. Wash. **55.**

Longihaustrum **gen. n.** p. 214, *ornatum* **sp. n.** New Zealand p. 215 figs., WOODWARD Rec. Canterbury [N.Z.] Mus. **6.**

Macroplax fasciata **var. n.** *nigroantennata* Italy p. 61, MANCINI Boll. Soc. ent. ital. **82** 1952.

Macropterna foveicollis Costa good sp. not syn. of *marginalis* Fieb. p. 60, MANCINI t.c.

Melanocoryphus key to spp. p. 133, VIDAL Bull. Soc. Sci. nat. Maroc **32.**

Metagerra characters p. 192; *obscura* re-description p. 193 figs., WOODWARD Rec. Canterbury [N.Z.] Mus. **6.**

Nysius senecionis **subsp. n.** *aegyptiacus* Egypt p. 43, PRIESNER & ALFIERI Bull. Soc. Fouad 1er Ent. **37.**

Opistholeptus jordani p. 385, *parvus* p. 386, *chinai* p. 387 **spp. n.** W. Africa, SLATER Beitr. Ent. **3.**

Ortholomus jordani **sp. n.** S. Kurdistan p. 380 figs., HOBERLANDT Beitr. Ent. **3.**

Panaorus **subgen. n.** (type *adspersus* Muls.) see *Rhyparochromus.*

Pterotmetus staphylinoides larva p. 181 figs., COBBEN Tijdschr. Ent. **96.**

Ptochiomera and allied genn. revision pp. 19–27 (key p. 20) BARBER Proc. ent. Soc. Wash. **55.**—*P. antennata* see *Sisamnes contractus.*

Regatarma **gen. n.** p. 196, *forsteri* (type) p. 197 (with **subspp. n.** *stephenensis* p. 200, *nelsonensis, evagorata* p. 201, *notialis, salmoni* p. 202 **spp. n.** New Zealand figs., WOODWARD Rec. Canterbury [N.Z.] Mus. **6.**

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Sisamnes contractus Dist. (=*Ptochiomera antennata* Van Duzee) p. 26, BARBER Proc. ent. Soc. Wash. **55.**

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List of and key to Tingidae of N. Tyrol, BATOR Beitr. Ent. **3** : 323–333, 3 pls.

Some Chinese and other Oriental Tingoidea, DRAKE & MAA Quart. J. Taiwan Mus. **6** : 87–101.

Tingidae of Shikoku, Japan, TAKEYA Trans. Shikoku ent. Soc. **3** : 167–176, 1 pl.

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Reduviidae of Parc nat. Albert, Belg. Congo, VILLIERS Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79: 35–54, 5 figs.

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Cavernicola pilosa re-description p. 246 figs., PÍFANO C. & ORTIZ Rev. Sanid. Asist. soc. **17** 1952.

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Definition of Microphysidae & keys to subfamm. & genn., CHINA Ann. Mag. nat. Hist. (12) **6** : 72–74.

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Euchilocoris balteatus Dist. p. 3, *bivittatus* D. p. 4 from *Paracalocoris*; *semirasus* D. from *Poecilocapsus* p. 15, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Eurychilella discoidalis Reut. (= *Tenthecoris nanus* Carv.) from *Sixeonotus*; *figueiredoi* Carv. from *Caulotops* p. 347; *fasciata* p. 349, *bicolor* p. 351 Costa Rica, Mexico, *cinnabarina* Brazil p. 350, *rubra* Panama p. 351 **spp. n.**; key to spp. p. 353 figs., CARVALHO Rev. brasil. Biol. **13.**

Eurycipitia splendens Dist. (= *clarus* D. (from *Sysinas*)) p. 5 CARVALHO Bol. Mus. nac. R. de J., (N.S.) Zool. no. 118 1952.

Falconia intermedius Dist. p. 9, *parvus* D. p. 12 from *Jornandes*; *semirasus* D. (=*lautus* D. (from *J.*) p. 9) from *J.* p. 15, CARVALHO t.c.—*F. andina* **sp. n.** Ecuador p. 35 figs., CARVALHO Rev. brasil. Biol. **13.**

Florus vittiscutellatus **sp. n.** Brazil p. 198 figs., CARVALHO t.c.

Fulvius bisbistillatus Stål (=*albomaculatus* Dist.) p. 2; *quadristillatus* S. (=*atratus* D.) p. 3, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Globicellus **subgen. n.** (type *dispar* Boh.) see *Globiceps*.

Globiceps (*Globicellus* **subgen. n.** p. 175), KIRICHENKO Opred. Faune SSSR **42** 1951.

Guarania brasiliana **sp. n.** Brazil p. 34 fig., CARVALHO Rev. brasil. Biol. **13.**

Halocapsus Put. raised to **gen.** from subgen. of *Orthotylus* p. 270; *salsolae* Reut. a valid sp. and not var. of *rubidus* p. 267, re-description p. 268 figs., WAGNER Ent. Ber., Amst. **14.**—*H.* (*Orthotylus*) *contrarius* **sp. n.** Germany p. 69 figs., WAGNER Nachr. naturw. Mus. Aschaffenburg no. 40.

Helopeltis bradyi Wat. a subsp. not var. of *antonii*; *theobromae* Mill. reduced to subsp. of *theivora* p. 177, BETREM Tijdschr. PlZiekt. **59.**

Hemicerocoris rubrovenosus **sp. n.** Mexico p. 269 fig., CARVALHO Rev. brasil. Biol. **13.**

Hemisphaerodella Reut. (=*Lopesiella* Wygod. from Microphysidae) p. 74, CHINA Ann. Mag. nat. Hist. (12) **6.**

Heterotoma meriopterum early stages p. 213 figs., VAN DINTHER Tijdschr. Ent. **96.**

Hissaritus **gen. n.** p. 184, *dimorphus* **sp. n.** Tadzhikistan p. 185 figs., KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Homolaner **gen. n.**, *luteocincta* **sp. n.** N. Caucasian range, Dagestan p. 198 figs., KIRICHENKO Opred. Faune SSSR **42** 1951.

Horcias plagosus Dist. (=*plausus* D.) p. 13, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.—*H. plumatus* see *Proba vittiscutis*.

Hyaliodes roraimensis Br. Guiana p. 37, *beckeri* p. 113, *binotatus* Brazil, *costaricensis* Costa Rica **spp. n.**; *vitreus* Dist. (=*glabratus* D.) p. 115; key p. 118 figs., CARVALHO Rev. brasil. Biol. **13**.

Hyaliodomiris labeculata Dist. from *Annona* p. 9, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.—*H. andina* **sp. n.** Bolivia, Peru p. 117; key p. 119 figs., CARVALHO Rev. brasil. Biol. **13**.

Itacoris pugasi **sp. n.** Brazil p. 39. figs., CARVALHO t.c.

Jornandes subalbicans Dist. (=*disimulans* D.) p. 6, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.—*J. intermedius*, *parvus*, *semirasus* (*lautus*) see *Falconia*; *praeustus* see *Ceratocapsus*; *vulgaris* see *Chlamydatus associatus*.

Knightonia peruana **sp. n.** Peru p. 171; *knighti* re-description p. 172 figs., CARVALHO An. Acad. bras. Ciênc. **25**.

Lampethusa annulatus Dist. from *Paracalocoris* p. 3, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Leptopterna griesheimae **sp. n.** Sicily p. 25 figs., WAGNER Boll. Ass. romana Ent. **7** 1952.

Linoceraea lunigera re-description p. 365 figs., HOBERLANDT Bull. Soc. Fouad ler Ent. **37**.

Lygus rubroclarus Knight valid sp. not var. of *vanduzeei*; *rubrosignatus* K. valid sp. not var. of *pratensis* p. 518, KNIGHT Iowa St. Coll. J. Sci. **27**.—*L.* (*Exolygus*) *italicus* **sp. n.** Italy p. 13 figs., WAGNER Boll. Ass. romana Ent. **6** 1951.—*L. cristatus* see *Proba vittiscutis*; *inspersus*, *panamensis*, *sallei* (*championi*), *tactus*, *vinaceus* see *P.*; *ordinatus* see *Orizaba*; *tribulis* see *P. gracilis*; *uvidus* see *Reuteroscopus*.

Macrotylus lindbergi **sp. n.** Cyprus p. 14 figs., WAGNER Comment. biol. **13** no. 14.

Madagascariella **gen. n.**, *longipedes* **sp. n.** Madagascar p. 44 figs., CARVALHO Mém. Inst. sci. Madagascar (E) **3**.

Megacoelum sanguinolentum see *Phytocoris*; *signatum* see *Creontiades*.

Megamiris saileri **sp. n.** Mexico p. 267 figs., CARVALHO Rev. brasil. Biol. **13**.

Mimocapsus **n. n.** for *Paramimus* Wagn. nec Huebn. p. 477, WAGNER Bull. Soc. Fouad ler Ent. **37**.

Mimoncopeltus key to spp. p. 78; *ecuadorensis* p. 82, *variabilis* p. 85 Ecuador, *brevirostris* Venezuela p. 84 **spp. n.**; *lycoideus* Reut. ♀ p. 82 figs., CARVALHO Rev. brasil. Biol. **13**.—*M. signoreti* Dist. from *Amnestus* p. 15, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Minytus argillaceus Dist. (=*bicolor* D.) p. 4, CARVALHO t.c.

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Monalocoris eminulus Dist. (=*hesperius* Reut.) (from *Carmelus*) p. 6, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Monalocorisca laterata (*emissitia*) see *Derophthalma*.

Neella frumentarius Dist. from *Poecilocapsus* p. 7, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Neoborus crassus Dist. (=*funereus* D.) p. 7, CARVALHO t.c.

Neocapsus opacus Walk. from *Calocoris* p. 11, CARVALHO t.c.

Neolygus betulae, *aesculi* **spp. n.** Missouri p. 512, KNIGHT Iowa St. Coll. J. Sci. **27**.

Neomecomma **subgen. n.** (type *bilineatus* Fall.) see *Orthotylus*.

Neurocolpus mexicanus Dist. (=*affinis* var. Dist.) p. 2, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Notholopus lunatus Dist. (=*mastrucatus* D. (from *P.*) p. 10) from *Paracalocoris* p. 9, CARVALHO t.c.

Ofellus mexicanus Mexico, *costaricensis* Costa Rica p. 235, *mantiqueiranus* Brazil p. 236 **spp. n.** figs., CARVALHO & SAILER Proc. ent. Soc. Wash. **55.**

Oncotylus viridiflavus larva p. 194 figs., COBBEN Tijdschr. Ent. **96.**—*O. caspicus* see *Acrotelus loevi*.

Ophthalmomiris reuteri Berg (=*roseus* Dist.) p. 14, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Orizaba (?) *ordinatus* Dist. from *Lygus* p. 11, CARVALHO t.c.

Orthocephalus medvedevi **sp. n.** Lower Volga p. 185 figs., KIRICHENKO Opred. Faune SSSR **42** 1951.

Orthotylus key to British spp. p. 430; comparative characters of spp. p. 435; *prasinus* Fall. (=*scotti* Reut.) p. 429; (*Pinocapsus*, *Neomecomma* **subgenn. n.** p. 443); check list of British spp. p. 445 figs., SOUTHWOOD Trans. R. ent. Soc. Lond. **104.**—*O. problematicus* **sp. n.** Turkestan p. 107 figs., LINNAVUORI Ann. ent. fenn. **19.**—*O.* subgen. *Halocapsus* raised to gen. p. 270, WAGNER Ent. Ber., Amst. **14.**

Pachypeltocoris **gen. n.**, *conspersus* **sp. n.** Missouri p. 514, KNIGHT Iowa St. Coll. J. Sci. **27.**

Pantilius prasinus see *Apantilius*.

Pappus egens, *insignis* see *Ceratocapsus*.

Paracalocoris annulatus see *Lampethusa*; *attennatus fistulosus*, *molliculus* see *Taedia*; *balteatus*, *bivittatus* see *Euchilocoris*; *lunatus* (*mastrucatus*) see *Notholopus*.

Paramimus see *Mimocapsus*.

Parazenetus chylectrus Dist. from *Xenetus* p. 5; *gibbus* D. from *Zosippus* p. 7, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Peruanocoris **gen. n.** p. 33, *tuberculatus* **sp. n.** Peru p. 34 fig., CARVALHO Rev. brasil. Biol. **13.**

Phytocoris dubitatus Dist., *elegans* D., *exustus* D. p. 6, *mistus* D. p. 11, *praesignis* D. p. 13, *vilis* D. p. 17 from *Compsocerocoris*; *sanguinolentum* D. from *Megacoelum* p. 14, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.—*P. tener* **sp. n.** Tadzhikistan p. 186, KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.—*P. tucki* p. 515, *osage* p. 517 **spp. n.** Missouri, KNIGHT Iowa St. Coll. J. Sci. **27.**—*P. pullatus* see *Platytylus*; *scrupeus* see *Taedia*.

Pilophorus confusus nymph p. 214 figs., VAN DINTHER Tijdschr. Ent. **96.**

Pinocapsus **subgen. n.** (type *fuscescens* Kirschb.) see *Orthotylus*.

Pithanus hraběi **sp. n.** (with **f. n.** *fusca* pp. 171, 230) Czechoslovakia pp. 168, 230 figs., STEHLÍK Acta Mus. Morav. **37** 1952.

Plagiognathus arbustorum early stages p. 215 figs., VAN DINTHER Tijdschr. Ent. **96.**—*P. albellus* **sp. n.** Missouri p. 509, KNIGHT Iowa St. Coll. J. Sci. **27.**

Platyscytus tucumanus **sp. n.** Argentina p. 38 figs., CARVALHO Rev. brasil. Biol. **13.**

Platytylellus accinctus Dist. p. 2, *atratus* D. p. 3, *bicolor* D., *bracteatus* D. p. 4, *erubescens* D. p. 6, *guatemalanus* D., *hogbergi* Stål, *intercidendus* D. p. 8, *interpunctus* D. p. 9, *marginandus* D., *mimicus* D. p. 10, *montivagus* D., *obscurans* D. p. 11, *ornaticollis* S., *parvus* D., *persignandus* D. p. 12, *plenus* D. p. 13, *schumanni* D. p. 14, *sudatus* D. p. 15, *teapensis* D., *thoracicus* D., *trujilloi* D. p. 16, *vitticeps* S., *vittifrons* S. p. 17 from *Resthenia*; *bivittis* S. (=*exornatus* D. (from *R.*) p. 6) from *R.* p. 4; *luteofasciatus* D. from *Zopyrus* p. 9; *jamaicensis* Walk. (=*panamensis* D. (from *R.*)); *latipennis* D. (=*pannosa* D. (from *R.*)) p. 12; *championi* **n. n.** for *univittatus* Dist. (from *R.*) nec Berg [not Berg nec Dist. as in orig.] p. 16, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Platytylus pullatus Burm. (=*candens* Dist. (from *Resthenia*) p. 4) from *Phytocoris* p. 13; *chiriquinus* D. p. 5,

montanus D. p. 11, *picticollis* Stål, *plagiger* S. p. 13 from *R.*; *melanochrus* H. S. from *Capsus* p. 10, CARVALHO t.c.

Poecilocapsus semirasus see *Euchilocoris*; *frumentarius* see *Neella*; *agraria* see *Proba*.

Poeciloscytus brevicornis **var. n.** *pallidonotus* Tadzhikistan p. 186, KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Polymerus froeschneri **sp. n.** Missouri p. 513, KNIGHT Iowa St. Coll. J. Sci. **27.**

Proba agraria Dist. from *Poecilocapsus* p. 2; *sallei* Stål (=*championi* D. (from *L.*) p. 4) from *Lygus* p. 14; *vittiscutis* S. (=*cristatus* D. (from *L.* p. 5), *plumatus* D. (from *Horcias* p. 13)); *inspersus* D. p. 8, *panamensis* D. p. 12, *tactus* D. p. 16, *vinaceus* D. p. 17 from *L.*; *gracilis* D. (=*tribulis* D. (from *L.*)) p. 16, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Psallus elegantulus Reut. (=*badius* Linnav.) from *Compsidolon* p. 109 figs., LINNAVUORI Ann. ent. fenn. **19.**—*P.* (*Hylopsallus*) *wagneri* **sp. n.** Sweden p. 122 figs., OSSIANNILSSON Opusc. ent. **18.**

Resthenia key to spp. p. 77; *gaucha* **sp. n.** Argentina p. 79; *poppiusi* Reut. re-description p. 80 figs., CARVALHO Rev. brasil. Biol. **13.**—*R. accinctus, atratus, bicolor, bivittis* (*exornatus*), *bracteatus, erubescens, guatemalanus, hogbergi, intercidendus, interpunctus, marginandus, mimicus, montivagus, obscurans, ornaticollis, parvus, persignandus, plenus, schumanni, sudatus, teapensis, thoracicus, trujilloi, vitticeps, vittifrons* see *Platytylellus*; *candens* see *Platytylus pullatus*; *chiriquinus, montanus, picticollis, plagiger* see *Platytylus*; *panamensis* see *Platytylellus jamaicensis*; *pannosa* see *Platytylellus latipennis*; *univittatus* see *Platytylellus*.

Reuteroscopus (?) *uvidus* Dist. from *Lygus* p. 17, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.—*R. froeschneri* **sp. n.** Missouri p. 509, KNIGHT Iowa St. Coll. J. Sci. **27.**

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Scirtetellus schamili, gudali (also Georgia) Dagestan, *voronovi* p. 182, *vitattus* p. 183 Transcaucasia **spp. n.** figs., KIRICHENKO Opred. Faune SSSR **42** 1951.—*S. maculiventris* **sp. n.** Tadzhikistan p. 189, KIRICHENKO Trud. zool. Inst. Akad. Nauk SSSR **10** 1952.

Sixeonotus discoidalis see *Eurychilella*.

Stenodema vicinum Prov. (=*affinis* Reut. (from *Miris*)) p. 2; *panamensis* Dist. from *M.* p. 12, CARVALHO Bol. Mus. nac. R. de J. (N.S.) Zool. no. 118 1952.

Stenotus rubripedes **sp. n.** Madagascar p. 47 figs., CARVALHO Mém. Inst. sci. Madagasar (E) **3.**

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Trigonotylus brevipes p. 61, *pallidicornis* p. 62 distinguishing characters; key to spp. p. 65 figs., WAGNER Nachr. naturw. Mus. Aschaffenburg no. 40.

Trilaccus annulipes **sp. n.** Australia p. 88 fig., CARVALHO Entomologist **86.**

Tuponia mascarenensis **sp. n.** Madagascar p. 51 figs., CARVALHO Mém. Inst. sci. Madagascar (E) **3.**—*T. michalki* **sp. n.** Italy p. 1; *brevirostris* ♂ p. 4; key to Centr. European spp. p. 5 figs., WAGNER Boll. Ass. romana Ent. **6** 1951.

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Zosippus foedus see *Allomatus*; *gibbus* see *Paraxenetus*.

SALDIDAE (ACANTHIIDAE).

Chiloxanthus arcticus Sahlb. a valid sp. not syn. of *pilosus* p. 107, LINNAVUORI Ann. ent. fenn. **19**.

Micracanthia floridana **sp.n.** U.S.A. p. 64 fig., DRAKE & CHAPMAN Bull. Brooklyn ent. Soc. **48**.

Oiosalda **gen. n.** p. 85, *caboti* **sp. n.** Colombia p. 86 fig., DRAKE & HOBERLANDT Psyche **59** [cf. Z.R. **89** 1952 p. 421, but published in 1953].

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CRYPTOSTEMMATIDAE (CERATOCOMBIDAE, DIPSOCORIDAE).

Cryptostemmatinae of Angola (key p. 46), WYGODZINSKY Publ. cult. Cia Diamant. Angola no. 16 : 29–47, 102 figs.

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Leptonannus biguttulus macropterous ♂ p. 43 figs., WYGODZINSKY Publ. cult. Cia Diamant. Angola no. 16.

Membracioides zschokkei **sp. n.** Panama p. 61 figs., WYGODZINSKY Acta zool. lilloana **10** 1952.

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Nannocoris descolei **sp. n.** Argentina p. 58 figs., WYGODZINSKY Acta zool. lilloana **10** 1952.

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Trichotonannus delamarei **n. n.** for *setulosus* Wygod. p. 36 ; *dundo* **sp. n.** Angola p. 38 figs., WYGODZINSKY Publ. cult. Cia Diamant. Angola no. 16.

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Microvelia hozari **subsp. n.** *macani* Iraq p. 584 figs., BROWN Ann. Mag. nat. Hist. (12) **6**.—*M. flavipes* apterous forms pp. 73–74, DRAKE & HOTTES Proc. biol. Soc. Wash. **66**.—*M. diluta* brachypterous form p. 119, larval stages p. 121 figs., MIYAMOTO Sieboldia **1**.

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Velia ventralis Put. (=*filippii* subsp. *anatolica* Tam.) ; *filippii* Tam. p. 39, *nervosa* Horv. p. 40 reduced to subspp. of *ventralis* figs., TAMANINI Boll. Soc. ent. ital. **82** 1952.—*V. alvaradana* p. 85, *verana* p. 87 **spp. n.** Mexico, DRAKE & HOTTES Proc. biol. Soc. Wash. **65** 1952.—*V. paulineae* **sp. n.** Mississippi p. 27 figs., WILSON Florida Ent. **36**.

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Charmatometra bakeri further description p. 173, HUNGERFORD Ent. News **64**.

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Metrobates trux **subsp. n.** *infuscatus* California p. 179, USINGER Pan-Pacif. Ent. **29.**

Tenagogonus (*T.*) *longicornis* **sp. n.** Fr. Guinea p. 281 figs., POISSON Mém. Inst. franç. Afr. noire no. 19 1952.

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Key to genn. of Notonectidae, TRUXAL Univ. Kansas Sci. Bull. **35**: 1366.

Anisops lamottei **sp. n.** Fr. Guinea p. 285 figs., POISSON Mém. Inst. franç. Afr. noire no. 19 1952.—*A. naias* see *Buenoa fuscipennis*.

Buenoa revision (keys p. 1369) pp. 1351–1523; *absidata* p. 1391, *macrotrichia* p. 1429, *oculata* p. 1467, *excavata* p. 1479 Peru, *tarsalis* Brazil p. 1392, *rostra* W. Indies, Venezuela p. 1395, *uhleri* p. 1409, *omani* p. 1426, *speciosa* p. 1437, *hungerfordi* p. 1483 U.S.A., Mexico, *nitida* Brazil, Peru p. 1430, *mutabilis* W. Indies, Venezuela, Br. Guiana, Peru, Paraguay p. 1432, *arida* p. 1435, *artafrons* p. 1444 U.S.A., *gracilis* Mexico, Honduras, Panama, W. Indies, Peru p. 1439, *communis* p. 1442, *incompta* p. 1466 Brazil, Bolivia, *confusa* Canada, U.S.A., Mexico, W. Indies p. 1453, *thomasi* p. 1473, *alterna* p. 1474, *distincta* p. 1485 Mexico, *unguis* Brazil, Peru, Bolivia, Paraguay, Argentina p. 1476 **spp. n.**; *carinata* Champ. reduced to subsp. of *antigone* Kirk. p. 1379; *fuscipennis* Berg (=*Anisops naias* Kirk., *Buenoa naias* Kirk., *dentipes* Jacz.) p. 1460; *salutis* Kirk. (=*mallochi* Jacz.) p. 1469 figs., TRUXAL Univ. Kansas Sci. Bull. **35.**

Enithares (*Enitharoides* **subgen. n.**) *duidaensis* **sp. n.** Venezuela p. 74 figs., BROOKS J. Kans. ent. Soc. **26.**

Enitharoides **subgen. n.** (type *duidaensis* sp. n.) see *Enithares*.

HELOTREPHIDAE.

Helotrephes formosanus larval stages p. 6 figs., MIYAMOTO Sieboldia **1** 1952.

PLEIDAE.

Plea some American spp. pp. 53–59; *nilionis* p. 55, *notana*, *apopkana* p. 59 U.S.A., *mexicana* Mexico p. 56, *absona*, *argentina* Argentina p. 58 **spp. n.**, DRAKE & CHAPMAN Proc. biol. Soc. Wash. **66.**

CORIXIDAE.

Agraptocorixa macrops New Guinea p. 39, *halei* Australia p. 43 **spp. n.** figs., HUNGERFORD J. Kans. ent. Soc. **26.**

Hesperocorixa interrupta all stages p. 112 figs., BOBB Virginia J. Sci. (N.S.) **4.**—*H. occulta* characters p. 590 figs., BROWN Ann. Mag. nat. Hist. (12) **6.**

Sigara samani Hoberl. further description p. 591, BROWN t.c.—*S.* (*Tropocorixa*) *guineensis* **sp. n.** Fr. Guinea p. 285 figs., POISSON Mém. Inst. franç. Afr. noire no. 19 1952.—*S.* (*Pediosigara*) *saileri* **sp. n.** Mississippi p. 67 figs., WILSON Florida Ent. **36.**

Homoptera.

Homoptera of Lake Tanganyika, LALLEMAND & SYNAVE 1952 Résult. sci. Explor. hydrobiol. Lac Tanganyika (1946–1947) **3** fasc. 3 : 23–26.

Additions to catalogue of Swedish Auchenorhyncha, OSSIANNILSSON Opusc. ent. **18** : 106–108.

CICADIDAE.

Okanagana davisi **sp. n.** California p. 191 figs., SIMONS Pan-Pacif. Ent. **29.**

Platypedia usingeri p. 192, *sylvesteri* p. 193, *middlekauffi* p. 194 **spp. n.** California ; *putnami* Uhl. (=*lutea* Davis) ; *keddiensis* D., *occidentalis* D. forms of *p.* ; *bernardoensis* D. (=*rufipes* var. *angustipennis* D.) a distinct sp. not var. of *r.* p. 195 figs., SIMONS t.c.

TETTIGOMETRIDAE.

Leafhoppers in Melichar's collection, DLABOLA Acta Mus. Morav. **38** : 168–173, 5 figs.

DELPHACIDAE (ARAEOPIDAE).

Calligypona vicina, detecta **spp. n.** Siberia p. 109 figs., LINNAVUORI Ann. ent. fenn. **19.**

Criomorphus fuscus **sp. n.** Siberia p. 110 figs., LINNAVUORI t.c.

Stenocranus ozenumensis **sp. n.** Japan p. 35 fig., ISHIHARA Insecta matsum. **18** 1952.—*S. yasumatsui* **sp. n.** Japan p. 5 figs., ISHIHARA Mushi **24** 1952.

DICTYOPHARIDAE.

Dictyophara subsimilis **sp. n.** Palestine p. 121 figs., LINNAVUORI Ann. ent. fenn. **19.**

CIXIIDAE.

Cixiidae of Parc nat. Albert, Belg. Congo (key to African genn. p. 11), SYNAVE Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79 : 9–34, 8 figs.

Cixiidae of Parc nat. Upemba, Belg. Congo, SYNAVE Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 23 : 1–49, 44 figs.

Achaemenes key to spp. p. 18 ; *kilimanus* **var. n.** *obscurus* ; *wittei* **sp. n.** Belg. Congo p. 22, SYNAVE Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79.—*A. kilimanus* **f. n.** *minutus* p. 10 ; *malaisei, flavescens* p. 11, *apicemaculatus* p. 12 **spp. n.** Belg. Congo ; *australis* Walk., *longipennis* W. from *Cixius* p. 33 ; *resurgens* W. (=*ornatipennis* Stål) from *C.* p. 34 figs., SYNAVE Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 23.

Andes key to ♂♂ p. 5 ; *spinosus* p. 6, *truncatus* p. 8, *monstruosus, angulatus* p. 9, *similis* p. 10 **spp. n.** Belg. Congo figs., SYNAVE t.c.—*A. lallemandi* **sp. n.** Belg. Congo p. 14 fig., SYNAVE Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79.

Brixia divisus Walk. from *Cixius* p. 33 ; key to Ethiopian spp. p. 40 ; *meeli* **sp. n.** Belg. Congo p. 43 figs., SYNAVE Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 23.

Cixius key to Ethiopian spp. p. 34 ; *chinai* p. 37 (with **f. n.** *fuscus* p. 38), *mukanensis* p. 38, *mubalensis* p. 39, *africanus* p. 40 **spp. n.** Belg. Congo figs., SYNAVE t.c.—*C. australis, longipennis, resurgens* see *Achaemenes* ; *divisus* see *Brixia.*

Myndus maculatus **sp. n.** Belg. Congo p. 17, SYNAVE Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79.—*M. adami* p. 30, *lusingensis* p. 31 **spp. n.** Belg. Congo figs., SYNAVE Explor. Parc nat. Upemba, Miss. de Witte (1946–49) fasc. 23.

Oliarus key to Ethiopian spp. p. 13; *virgultivagus* Hesse reduced to form of *moestus* p. 25; *verheyeni* p. 26, *lukawensis*, *lupialensis* p. 27, *kankundensis* p. 28 (with **f. n.** *niger* p. 29) **spp. n.** Belg. Congo figs., SYNAVE t.c.—*O. oppositus*, *atkinsoni* distinguishing characters p. 71 fig., CUMBER Trans. roy. Soc. N.Z. **81.**—*O. angustiformis* **sp. n.** Palestine p. 121 figs., LINNAVUORI Ann. ent. fenn. **19.**—*O. capeneri* **sp. n.** S. Africa p. 1 figs., SYNAVE Bull. Inst. Sci. nat. Belg. **28** no. 33.—*O. damasi* **sp. n.** Belg. Congo p. 28, SYNAVE Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79.

Ptoleria straeleni **sp. n.** Belg. Congo p. 32 fig., SYNAVE t.c.

LOPHOPIDAE.

Pyrilla perpusilla colour varr., genitalia, **var. n.** *nigriventris* Delhi pp. 196–197, MUKERHJI & PRASAD Proc. 4th Indian Sci. Congr. Lucknow Part III Abstracts.

CERCOPIDAE.

Revisionary notes on Neotropical Monecphorine Cercopoidea, FENNAH Ann. Mag. nat. Hist. (12) **6**: 337–360, 15 figs.

Studies on Neotropical Cercopinae, NAST 1951 Bull. ent. Pologne **20**: 55–74, 12 figs.

Aeneolamia contigua Wlk. from *Triecphora* and subsp. of *postica* W. p. 350; *p.* **subspp. n.** *san*[*c*]*taerosae* p. 351, *occidentalis* Mexico, *turrialbae* Costa Rica p. 352; *bogotensis* Dist. from *Tomaspis* and subsp. of *varia* F.; *astralis* Dist. from *T.* p. 353, FENNAH Ann. Mag. nat. Hist. (12) **6.**

Aufidus fuscomaculatus p. 190, *rossi* p. 191, *quinquepunctatus* New Guinea, *siotanus* Florida Is. p. 193 **spp. n.** figs., LALLEMAND & SYNAVE Bull. Ann. Soc. ent. Belg. **89.**

Clovia mindorensis **sp. n.** Philippines p. 195 figs., LALLEMAND & SYNAVE t.c.

Delassor tristis **subsp. n.** *quadrimaculata* Venezuela p. 349; *guppyi* Urich a subsp. of *tristis*; *rubicundus* Wlk. (and subspp. *indentatus* W., *integer* W.) from *Monecphora*; *chilensis* Dist., *paraguayanus* Lall., *rubropictus* Mel., *jonesi* M., *dimorphus* D. from *Tomaspis* p. 350, FENNAH Ann. Mag. nat. Hist. (12) **6.**

Deois (*Orodamnis*, *Pandysia* **subgenn. n.**) (*P.*) *schach* F. (=*humeralis* St. F. & S.); *solita* Wlk. from *Monecphora* p. 356; *knoblauchii* Berg, *multicolor* Dist., *picklesi* C. & M. from *Tomaspis*; *transiens* Dist. from *Sphenorhina* p. 357, FENNAH t.c.

Guarania **gen. n.** for *Tomaspis parana* Dist., *T. consanguinea* D. (type), *T. chapada* D. & var. *distanti* Lall., *T. brasiliensis* D. p. 58; *parana* var. *major* **n. n.** for var. *distanti* Lall. nec *chapada* var. *distanti* Lall. p. 60 figs., NAST Bull. ent. Pologne **20** 1951.

Iophosa nigra **sp. n.** New Guinea p. 196 figs., LALLEMAND & SYNAVE Bull. Ann. Soc. ent. Belg. **89.**

Isozulia **gen. n.**, *flamen* **sp. n.** Bolivia p. 51 figs., FENNAH Proc. biol. Soc. Wash. **66.**

Monecphora rubicundus (subspp. *indentatus*, *integer*) see *Delassor*; *solita* see *Deois*; *basalis* see *Prosapia bicincta basalis*.

Neomonecphora robusta, *obtusa* **spp. n.** Fr. Guiana p. 69 figs., NAST Bull. ent. Pologne **20** 1951.

Neozulia **subgen. n.** (type *vilior* Fowl.) see *Zulia*.

Opistarsostethus carinata see *Paratrichoscarta*.

Orodamnis **subgen. n.** (type *rhynchosporae* China & Myers) see *Deois*.

Panabrus **gen. n.** for *Tomaspis dominicana* Dist. p. 357 figs., FENNAH Ann. Mag. nat. Hist. (12) **6.**

Pandysia **subgen. n.** (type *schach* F.) see *Deois*.

Paratrichoscarta **gen. n.** for *Opistarsostethus carinata* Stål p. 115 figs., LALLEMAND & SYNAVE Bull. Ann. Soc. ent. Belg. **89.**

Pareurycercopis **gen. n.**, *boharti* **sp. n.** Admiralty Is. p. 197 figs., LALLEMAND & SYNAVE t.c.

Plagiophleboptena smaragdina Jac. from *Tomaspisina* p. 71 figs., NAST Bull. ent. Pologne **20** 1951.

Prosapia key to spp. p. 338; *basalis* Wlk. from *Monecphora* and a subsp. of *bicincta* Say; *simulans* **subspp. n.** *mulieris* p. 342, *teapana* Mexico, *sordida* p. 343, *zunilana* Guatemala, *ripalis* Br. Honduras; *s.* subsp. *unifasciata* Lall. from *Sphenorhina* p. 345; *latens* **sp. n.** Guatemala (with **subsp. n.** *turrialbae* Costa Rica) p. 347 figs., FENNAH Ann. Mag. nat. Hist. (12) **6.**

Sphenorhina metallica, brunnea see *Zulia*; *transiens* see *Deois*; *simulans* subsp. *unifasciata* see *Prosapia.*

Tiodus **gen. n.** p. 55, *elongatus* **sp. n.** Panama, Colombia p. 56 figs., NAST Bull. ent. Pologne **20** 1951.

Tomaspis furcata Germ. (=*collaris* LeP. & Serv.); *f.* var. *rufipennis* Schm. (=var. *completa* Schm.); *nigricans* Am. & Serv. (=*rufifrons* Schm.) p. 66 figs., NAST t.c.—*T. parana* & var. *major* (*distanti*), *consanguinea, chapada* & var. *distanti, brasiliensis* see *Guarania*; *chilensis, paraguayanus, rubropictus, jonesi, dimorphus* see *Delassor*; *bogotensis, astralis* see *Aeneolamia*; *knoblauchii, multicolor, picklesi* see *Deois*; *dominicana* see *Panabrus.*

Tomaspisina rubromarginata Colombia p. 72, *fuliginosa* Peru p. 73 **spp. n.** figs., NAST Bull. ent. Pologne **20** 1951.—*T. smaragdina* see *Plagiophleboptena.*

Triecphora contigua see *Aeneolamia postica.*

Zulia metallica Wlk., *brunnea* Lall. from *Sphenorhina*; *vespillo* Fenn. a subsp. of *metallica* p. 353; (*Neozulia* **subgen. n.** p. 354); *vilior* **subsp. n.** *costaricensis* Costa Rica p. 355 figs., FENNAH Ann. Mag. nat. Hist. (12) **6.**

MEMBRACIDAE.

Membracidae of Wisconsin, DENNIS 1952 Trans. Wis. Acad. Sci. Arts Lett. **41**: 129–152, 4 pls.

Acanthophyes risbeci Senegal, *maculipennis* S. Aïr **spp. n.** p. 37 figs., CAPENER J. ent. Soc. S. Afr. **16.**

Euxiphopoeus geniculatus see *Tricoceps.*

Gongroneura triste, ornatum see *Negus*; *brevicornis* see *Kombazana.*

Kombazana brevicornis Jac. from *Gongroneura* p. 116, IZZARD Ent. mon. Mag. **89.**

Multareis characters p. 78; *cornutus* re-description p. 80, discussion of American forms p. 82; *c.* **subsp. n.** *lawsoni* U.S.A. p. 81, COOK J. Kans. ent. Soc. **26.**—*M. planifrons, digitatus* see *Multareoides.*

Multareoides **gen. n.** for *Multareis planifrons* Van Duz., *M. digitatus* Van. D. p. 83; key to N. & Centr. American spp. p. 84; *bifurcatus* (type) **sp. n.** U.S.A. p. 85 figs., COOK J. Kans. ent. Soc. **26.**

Negus triste Buckt., *ornatum* B. from *Gongroneura* p. 116, IZZARD Ent. mon. Mag. **89.**

Otinotus albescens p. 40, *spatulatus* p. 41 Senegal, *joveri* Ivory Coast p. 42 **spp. n.** figs., CAPENER J. ent. Soc. S. Afr. **16.**

Oxyrhachis senegalensis **sp. n.** Senegal p. 43 figs., CAPENER t.c.—*O. delalandei* Fairm. identity discussed; *capeneri* **sp. n.** Mediterranean Region p. 116, IZZARD Ent. mon. Mag. **89.**

Philya inflata **sp. n.** Brazil p. 47 figs., METCALF J. N.Y. ent. Soc. **61.**

Takliwa carteri characters p. 45 fig., CAPENER J. ent. Soc. S. Afr. **16.**

Tricoceps geniculatus Stål from *Euxiphopoeus*, re-description p. 45; *tenuosus* **sp. n.** Fr. Guinea p. 46 figs., CAPENER t.c.

Yaponotus **gen. n.**, *villiersi* **sp. n.** Ivory Coast p. 48 figs., CAPENER t.c.

JASSIDAE (CICADELLIDAE).

Synopsis of Neocoelidinii of Americas, DELONG Lloydia **16**: 93–131, 8 figs.

Key to genn. and tentative check list of Cicadelloidea of Japan, ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11 : 1–72, 17 pls.

Acocephalus discigruttus see *Hishimonus*.

Acocoelidia **gen. n.**, *unipuncta* (type) Mexico p. 130, *anomala* Costa Rica p. 131 **spp. n.** figs., DELONG Lloydia **16.**

Aconura pallifrons Horv. (?= *instabilis* Rib.) p. 56, LINNAVUORI Ann. ent. fenn. **19.**

Aconurella prolixa Leth. (= *Thamnotettix sanguisuga* Lindb.) p. 56, LINNAVUORI t.c.

Albicostella **gen. n.** for *Thamnotettix albicosta* Mats. p. 196 figs., ISHIHARA Trans. Shikoku ent. Soc. **3.**

Alconeura torosa p. 241, *griffithi*, *bicornella* p. 243, *colimae*, *eborea* p. 244, *nigroscuta* p. 245, *osborni*, *asymetrica* p. 246, *micropunctata* p. 247, *albavulta*, *rutilivitta* p. 249, *dimorpha* p. 250 **spp. n.** Mexico figs., RUPPEL & DELONG Lloydia **15.**

Alebroides rubicunda **sp. n.** Japan p. 28 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Allygus dentatus Mats., *kogotensis* Mats., *praesul* Horv. from *Jassus* p. 41, ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11. (See also *Matsumurella*.)

Amimenus **gen. n.** for *Scaphoideus mojiensis* Mats. p. 12 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Athysanus tokitonis see *Euscelis*; *ogikubonis* see *Usuironus*; *maculaticeps* see *Handianus*; *albinervosus* see *Paramesodes*.

Austroasca (*A.*) *infulata* **sp. n.** S. Australia p. 33 figs., LOWER Proc. Linn. Soc. N.S.W. **78.**

Bythoscopus juglans, *nitobei*, *towadensis* see *Oncopsis*.

Cicada ferruginea see *Megalotettigella*.

Cicadula revision of N. American spp. pp. 215–226 (key p. 215); *smithi* Van D. (= *Thamnotettix vittipennis* Sand. & DeL.) p. 216; *intermedia* Boh. (= *Cyperana eruca* DeL., *montula* DeL.); *straminea* Sand. & DeL. (= *intermedia* Wagn., *ossiannilssoni* Kont., *Cyperana smithi pollicarius* Ball, *wanakana* Ball, *stylata* DeL., *gesa* DeL.) p. 222; *quinquenotata* Boh. (= *Thamnotettix decipiens* Prov., *Limotettix aurantipes* Edw., *persimilis* Edw.) p. 224 figs., BEIRNE & YOUNG Canad. Ent. **85.**—*C. buzensis*, *masatonis* see *Macrosteles*.

Cocoelidia **subgen. n.** (type *antlera* sp. n.) see *Neocoelidiana*.

Coelella **subgen. n.** (type *distincta* Oman) see *Neocoelidiana*.

Coelidiana spina Peru, Brazil etc. p. 128, *bidentata* Costa Rica p. 129, (*Nelidina* **subgen. n.** p. 129) *defila* Peru p. 130 **spp. n.** figs., DELONG Lloydia **16.**

Cyperana eruca, *montula* see *Cicadula intermedia*; *smithi pollicarius*, *wanakana*, *stylata*, *gesa* see *C. straminea*.

Deltocephalus alboniger see *Psammotettix*; *candidus* see *Futasujinus*; *yanonis* see *Yanocephalus*; *dorsalis* see *Inazuma*; *oryzae* see *Inemadara*; *nigrifemoratus* see *Paralaevicephalus*.

Dicranoneura Doug. status discussed p. 166, METCALF Proc. ent. Soc. Wash. **55.**

Dikraneura lenensis **sp. n.** Siberia p. 116 figs., LINNAVUORI Ann. ent. fenn. **19.**—*D. stonei* p. 349, *halberda*, *ardea* p. 350 **spp. n.** Mexico figs., RUPPEL & DELONG Ohio J. Sci. **53.**

Dikrella crocea p. 1, *exila*, *opala* p. 2, *dentata*, *lurida* p. 3, *duplica*, *scinda* p.4, *unica* p. 6, *gilva*, *eburnea* p. 8 **spp. n.** Mexico figs., RUPPEL & DELONG Bull. Brooklyn ent. Soc. **48.**

Diplocolenoidea **gen. n.** p. 58, *turkestanica* (type) Turkestan, *perexigua* Siberia **spp. n.** p. 59 figs., LINNAVUORI Ann. ent. fenn. **19.**

Drabescidae **fam. n.** p. 6 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Edwardsiana key to spp. p. 1209; *expanda* DeL. & Johns. p. 1215, *australis* Frogg. p. 1220, *commissuralis* Stål p. 1223, *ariste* McA. p. 1227, *euphrante* McA. p. 1228 from *Typh-*

locyba; *projecta* p. 1221, *pseudocommissuralis* (also Quebec), *dejecta* (also Ontario) p. 1222, *nigripennis* p. 1225, *delongi* p. 1226 **spp. n.** U.S.A.; *dorsti* Ossiann. (=*T. enascora* DeL. & Johns.) from *T.* p. 1225 figs., CHRISTIAN Univ. Kansas Sci. Bull. **35.**

Elymana bambusae Mats. from *Thamnotettix* p. 41, ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Empoa key to spp. p. 1190; *aureotecta* Sand. & DeL. (=*gillettei* var. *russeola* McA.) p. 1193; *elmata* p. 1194, *caryata* p. 1198, *platana* p. 1199, *acericola* p. 1200, *latifasciata* p. 1203 **spp. n.** U.S.A.; *casta* McA. p. 1196, *venusta* McA. p. 1201, *scripta* McA. (=*Typhlocyba gillettei* subsp. *oregonensis* Beam.) p. 1202, *vestita* McA. p. 1204 from *Typhlocyba*, valid spp. not varr. of *querci*; *gillettei* Van Duz. p. 1200, *spinosa* Beam. p. 1205 from *T.*; *albicans* Walsh (=*T. cymba* var. *pallens* McA.) p. 1206 figs., CHRISTIAN Univ. Kansas Sci. Bull. **35.**—*E. australis* see *Ossiannilssonola*.

Empoasca revision of *solana* group (key p. 152) pp. 151–160; *stevensi* Florida p. 155, *wolcotti* Porto Rico p. 158 **spp. n.** figs., YOUNG J. Agric. Univ. P.R. **37.**—*E. onukii* **sp. n.** Japan p. 20 figs., MATSUDA Oyo-Kontyu **8** 1952.—*E. lindbergi* Linnav. (=*borealis* Lindb.) p. 117 figs., LINNAVUORI Ann. ent. fenn. **19.**

Erythroneura juglandacea, ulmosa p. 78, *ulmalatae, rugosae, frisoni* p. 80, *verdana* p. 81, *aesculella, florida, similalis* p. 82, *acutalis, salmoides, noevoides, lyratae* p. 83, *tura, zephyr, wysongi* p. 84, *haspata, tietzi* p. 85, *ampasa, imbricariae, tammina* p. 86, *eversi, acericola, lamucata, emquu* p. 88, *patris* p. 89, *havana, phellos, comoides* p. 90 **spp. n.** U.S.A. figs., ROSS & DELONG Ohio J. Sci. **53.**—*E. improvisa* p. 61, *longifalx* p. 62 **spp. n.** Egypt; *fasciolata* Leth. (=*tamaricis cypria* Rib.) p. 63; *pulcherrima* **sp. n.** Greece p. 118 figs., LINNAVUORI Ann. ent. fenn. **19.**

Eupteryx orientalis Turcmenia p. 61, *iranica* Iran p. 117 **spp. n.** figs., LINNAVUORI t.c.

Eurycoelidia **subgen. n.** (type *pulchella* Ball) see *Stenocoelidia*.

Euscelis tokitonis Mats. from *Athysanus* p. 43, ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.—*E. striola* see *Paramesodes albinervosus*.

Eutettix nakaharae see *Nakaharanus*; *satsumae* see *Satsumanus*.

Falcitettix **gen. n.** p. 57, *sibiricus* **sp. n.** Siberia p. 58 figs., LINNAVUORI Ann. ent. fenn. **19.**

Futasujinus **gen. n.** for *Deltocephalus candidus* Mats. p. 15 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Handianus trispinosus **sp. n.** Siberia; *maculaticeps* Reut. from *Athysanus* p. 112 figs., LINNAVUORI Ann. ent. fenn. **19.**

Hardya ribauti **sp. n.** Transcaspia p. 113 figs., LINNAVUORI t.c.

Henribautia key to spp. p. 1116; *beameri* **sp. n.** Arizona p. 1118 fig., CHRISTIAN Univ. Kansas Sci. Bull. **35.**

Hephathus nanus **var. n.** *orientalis* Palestine p. 122 figs., LINNAVUORI Ann. ent. fenn. **19.**

Hishimonus **gen. n.** for *Acocephalus disciguttus* Wlk. p. 11 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Inazuma **gen. n.** for *Deltocephalus dorsalis* Mots. p. 15 figs., ISHIHARA t.c.

Inemadara **gen. n.** for *Deltocephalus oryzae* Mats. p. 15 figs., ISHIHARA t.c.

Jassus kogotensis, dentatus see *Allygus* and *Matsumurella*; *praesul* see *A.*

Joruma aurea, clavata p. 340, *orizabae, krausi* p. 342 **spp. n.** Mexico figs., RUPPEL & DELONG Ohio J. Sci. **53.**

Kurotsuyanus **gen. n.** for *Tettigoniella sachalinensis* Oshanin p. 4 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Limotettix aurantipes, persimilis see *Cicadula quinquenotata*.

Luzoniana **n. n.** for *Luzoniella* Mel. nec Karny; *philippina* **sp. n.** N. Luzon p. 47 figs., METCALF Ohio J. Sci. **53.**

Luzoniella see *Luzoniana.*

Macropsis apicalis Mats. p. 21, *bifasciata* Mats., *illota* Horv., *jozankeana* Mats., *kagoshimensis* Mats., *satsumensis* Mats. p. 22 from *Pediopsis*, ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.—*M. gravesteini* **sp. n.** (with **subsp. n.** *nigropicta*) Holland p. 232 figs., WAGNER Ent. Ber., Amst. **14.**—*M. brunnea, ogasawarensis, stigmata* see *Stragania.*

Macrosteles buzensis Mats., *masatonis* Mats. from *Cicadula*; *litoralis* Mats. from *Thamnotettix* p. 37, ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Matsumurella **gen. n.** for *Jassus kogotensis* Mats. (=*J. dentatus* M.) p. 200 figs., ISHIHARA Trans. Shikoku ent. Soc. **3.**

Mcateeana **gen. n.** for *Ossiannilssonia sexnotata* Van Duz. p. 1131 fig., CHRISTIAN Univ. Kansas Sci. Bull. **35.**

Megalotettigella **gen. n.** for *Cicada ferruginea* F. p. 3 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Nakaharanus **gen. n.** for *Eutettix nakaharae* Mats. p. 192 fig., ISHIHARA Trans. Shikoku ent. Soc. **3.**

Nelidina **subgen. n.** (type *defila* sp. n.) see *Coelidiana.*

Neocoelidia orientalis, bifida **spp. n.** U.S.A. p. 96 figs., DELONG Lloydia **16.**—*N. texana, lineata, beameri, fuscovittata, pulchella, pallida, compta, grandiosa, barretti, tripunctata* see *Stenocoelidia*; *obscura, distincta* see *Neocoelidiana.*

Neocoelidiana **gen. n.** for *Neocoelidia obscura* Baker (type) p. 122; *carina, filamenta* p. 123, *fulgida, mella* p. 124, *capitata, tuxpana* p. 125, *venosa* p. 126, *antlera* p. 127 **spp. n.** Mexico; (*Coelella* p. 125, *Cocoelidia* p. 126 **subgenn. n.**); (*Coelella*) *distincta* Oman from *N.* p. 126 figs., DELONG Lloydia **16.**

Neolimnus **gen. n.** for *Scaphoideus aegyptiacus* Mats. p. 114 figs., LINNAVUORI Ann. ent. fenn. **19.**

Omaniella **gen. n.**, *flavopicta* **sp. n.** Japan p. 196 figs., ISHIHARA Trans. Shikoku ent. Soc. **3.**

Oncopsis juglans Mats., *nitobei* Mats., *towadensis* Mats. from *Bythoscopus* p. 21, ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.—*O. omogonis* **sp. n.** Japan p. 118 figs., ISHIHARA in ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl.

Ossiannilssonia see *Ossiannilssonola*; *sexnotata* see *Mcateeana.*

Ossiannilssonola **n. n.** for *Ossiannilssonia* Young & Christ. nec Lamb. pp. 1107, 1132; key to spp. p. 1133; *antigone* McA. (=*Typhlocyba eurydice* var. *distincta* McA.) p. 1139; *danae* McA. (=*Typhlocyba eurydice* McA.) p. 1149; *appendiculata* Mall. (=*T. gillettei* var. *sellata* McA.) p. 1150; *volans* McA. from *Typhlocyba* valid sp. not var. of *gillettei* p. 1138; *australis* Walsh (=*T. nicarete* McA.) from *Empoa* p. 1142; *bangsoni* p. 1145, *mcateei* p. 1148, *rossi* p. 1153, *knulli* p. 1154 **spp. n.** U.S.A. figs., CHRISTIAN Univ. Kansas Sci. Bull. **35.**

Paraboloponidae **fam. n.** p. 5 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Paracoelidia mexicana **sp. n.** Mexico p. 102 figs., DELONG Lloydia **16.**

Paralaevicephalus **gen. n.** for *Deltocephalus nigrifemoratus* Mats. p. 14 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Parallaxis diffusa **sp. n.** Mexico p. 181 fig., RUPPEL & DELONG Ohio J. Sci. **53.**

Paramesodes **gen. n.** for *Athysanus albinervosus* Mats. (=*Euscelis striola* Esaki) p. 14 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Paramesus ancorifer **sp. n.** Lesbos p. 113 figs., LINNAVUORI Ann. ent. fenn. **19.**

Pediopsis apicalis, bifasciata, illota, jozankeana, kagoshimensis, satsumensis see *Macropsis.*

Plesiommata alcorni **sp. n.** Mexico p. 65 figs., BEAMER J. Kansas ent. Soc. **26.**

Polisanella Mel. characters p. 48; *bakeri* **sp. n.** Luzon p. 50 figs., METCALF Ohio J. Sci. **53.**

Protalebra variata, plummeri p. 226; *aureocosta* p. 227, *caldwelli, sobrina, pallida, conica* p. 228 **spp. n.** Mexico figs., RUPPEL & DELONG Ohio J. Sci. **53.**

Psammotettix alboniger Leth. from *Deltocephalus* p. 116 figs., LINNAVUORI Ann. ent. fenn. **19.**

Ribautiana key to spp. p. 1120; *parapiscator* p. 1123, *multispinosa* p. 1125 **spp. n.** U.S.A.; *unca* McAtee (=*Typhlocyba surda* DeL. & Johns.) p. 1129 figs., CHRISTIAN Univ. Kansas Sci. Bull. **35.**

Satsumanus **gen. n.** for *Eutettix satsumae* Mats. p. 193 figs., ISHIHARA Trans. Shikoku ent. Soc. **3.**

Scaphoideus aegyptiacus see *Neolimnus*; *mojiensis* see *Amimenus.*

Scleroracus robustus **sp. n.** p. 60; *transversus* **var. n.** *paradoxus* p. 61 Siberia figs., LINNAVUORI Ann. ent. fenn. **19.**

Sorhoanus medius ♀ p. 56; *bicornis* **sp. n.** Siberia p. 116 figs., LINNAVUORI t.c.

Stenocoelidia **gen. n.**, *clara* p. 104, *erecta* p. 117 Honduras, *stigma* (also El Salvador, Guatemala), *tamazella, sagula* p. 106, *hyalina, tigrina* p. 108, *minuenda, virgata* (type) p. 112, *nitida, tempora* p. 113, *bilobata* p. 114, *brunnea* p. 117, *comptana, goodi* p. 119, *recurvata, stonei* p. 120, *marginella* p. 121 Mexico, *plummeri* Guatemala p. 110 **spp. n.**; (*Eurycoelidia* **subgen. n.** p. 112); *texana* Oman p. 110, *lineata* Baker p. 113, *beameri* Oman p. 114, *fuscovittata* Oman, *pulchella* Ball p. 115, *pallida* Baker, *compta* Ball, *grandiosa* Knull p. 116, *barretti* Baker p. 118, *tripunctata* Ball p. 119 from *Neocoelidia*; *fuscodorsata* Fowl. p. 121, *verecunda* Fowl. p. 122 from *Tettigonia* figs., DELONG Lloydia **16.**

Stragania brunnea Mats., *ogasawarensis* Mats., *stigmata* Mats. from *Macropsis* p. 20, ISHIHARA Sci. Reps Matsuyama agric. coll. no. 11.

Tartessidae **fam. n.** p. 5 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

Tengirhinus **gen. n.** p. 115, *tengu* **sp. n.** Japan p. 117 figs., ISHIHARA in ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl.

Tettigonia fuscodorsata, verecunda see *Stenocoelidia.*

Tettigoniella sachalinensis see *Kurotsuyanus.*

Thamnotettix allygidioides **sp. n.** Palestine p. 123 figs., LINNAVUORI Ann. ent. fenn. **19.**—*T. vittipennis* see *Cicadula smithi*; *decipiens* see *C. quinquenotata*; *litoralis* see *Macrosteles*; *bambusae* see *Elymana*; *albicosta* see *Albicostella*; *sanguisuga* see *Aconurella prolixa.*

Typhlocyba revision of complex in N. America (keys p. 1114) pp. 1103–1277; *jacobii* **n. n.** for *duplicata* Jac. nec McA. p. 1107; *medleri* p. 1169, *attenuata* p. 1172, *alabamaensis* p. 1177, *transviridis* p. 1179, *inflata* p. 1186 **spp. n.** U.S.A.; *rubriocellata* Mall. (=*escana* Ross & DeL.) p. 1174; *persephone* McA. (=*lancifer* McA.) p. 1184 figs., CHRISTIAN Univ. Kansas Sci. Bull. **35.**—*T. aureolineata* **sp. n.** Mexico p. 182, RUPPEL & DELONG Ohio J. Sci. **53.**—*T. surda* see *Ribautiana unca*; *eurydice* var. *distincta* see *Ossiannilssonola antigone*; *eurydice* see *O. danae*; *gillettei* var. *sellata* see *O. appendiculata*; *volans* see *O.*; *nicarete* see *O. australis*; *casta, venusta, scripta* (*gillettei* subsp. *oregonensis*), *vestita, gillettei, spinosa* see *Empoa*; *cymba* var. *pallens* see *E. albicans*; *expanda, australis, commissuralis, ariste, euphrante, dorsti* (*enascora*) see *Edwardsiana.*

Typhlocybella parva **sp. n.** Mexico p. 181 fig., RUPPEL & DELONG Ohio J. Sci. **53.**

Usuironus **gen. n.** for *Athysanus ogikubonis* Mats. p. 197 fig., ISHIHARA Trans. Shikoku ent. Soc. **3.**

Yanocephalus **gen. n.** for *Deltocephalus yanonis* Mats. p. 15 figs., ISHIHARA Sci. Reps Matsuyama agric. Coll. no. 11.

PSYLLIDAE (CHERMIDAE).

Some Psyllidae from Amakusa, Japan, KUWAYAMA 1939 Zool. Mag., Tokyo **51** : 535–537, 5 figs.

Jumping plant-lice in the Moravian Museum, II, VONDRÁČEK Acta Mus. Morav. **38** : 174–179.

Ceropsylla guyavae **sp. n.** Brazil p. 42 figs., DE AGUIAR GUIMARÃES Agronomia, Rio de Janeiro **12** no. 2.

Psylla amakusensis **sp. n.** Japan p. 536 figs., KUWAYAMA Zool. Mag., Tokyo **51** 1939.

APHIDAE.

Aphididae and Eriosomatidae of New Zealand (history of Aphid classification pp. 38–51), COTTIER Bull. N.Z. Dep. sci. ind. Res. no. 106 xi & 382 pp. 98 figs.

Notes on E. African Aphids, I–IV, EASTOP E. Afr. agric. J. **18** : 133–135, 184–187, 2 figs. ; **19** : 14, 6 figs., 104, 14 figs.

Study of the Tramini, EASTOP Trans. R. ent. Soc. Lond. **104** : 385–413, 1 pl. 1 fig.

Some Aphidae of S. America, ESSIG Proc. Calif. Acad. Sci. **28** : 59–164, 56 figs.

Aphids of Greenland, HILLE RIS LAMBERS 1952 Medd. Grønland **136** : 1–33, 5 pls. 2 figs. 1 map.

Contributions to a monograph of the Aphididae of Europe, V, HILLE RIS LAMBERS Temminckia **9** : 1–176, 6 pls. 10 figs.

Monographic study of Japanese Adelgidae, INOUYE 1945 Bull. Hokkaido For. exp. Sta. no. 15 : 1–105, 66 pls. [re-issued as Bull. Sapporo Govt. For. exp. Sta. no. 15 : 1–91, 66 pls.]

Aphids of the Rocky Mountain region, PALMER 1952 [4+] 452 pp. 8 col. pls. 455 figs.

Contribution to a classification of Centr. European Lachnidae, PAŠEK Acta Soc. zool. bohemoslov. **17** : 149–177, 11 figs.

Lachnids of Czechoslovakia, PAŠEK 1952 Biol. Sborn. slovensk. Akad. **7** no. 5–6 : 91–99.

Classification of Saltusaphidinae (key to genn. p. 227), QUEDNAU Zool. Anz. **150** : 226–229.

Contribution to the study of French Aphids, REMAUDIÈRE 1952 Rev. Path. vég. **31** : 232–263, 5 pls.

Lachnidae of Bavaria, SCHMUTTERER NachrBl. bayer. Ent. **2** : 86–87, 92–94.

Dendrophilous Aphids of the steppe & desert zones of the Ural region, SHAPOSHNIKOV 1952 Trud. zool. Inst. Akad. Nauk SSSR **11** : 92–110, 3 figs.

List of Japanese Aphidini, SHINJI 1939 Zool. Mag., Tokyo **51** : 432–439, 5 figs.

Acyrthosiphon bidentis **sp. n.** Kenya p. 201 figs., EASTOP Ent. mon. Mag. **89**.—*A. boreale* p. 5, *brachysiphon* p. 6 **spp. n.** Greenland fig., HILLE RIS LAMBERS Medd. Grønland **136** 1952.

Adelges laricis **var. n.** *karamatsu* Japan p. 64 figs., INOUYE Bull. Hokkaido For. exp. Sta. no. 15 1945 [re-issued as Bull. Sapporo Govt. For. exp. Sta. no. 15 : 40].—*A. ishiharai* see *Aphrastasia*.

Amphorophora stanleyi Wils. from *Macrosiphum* p. 243 ; *urtica* Essig (=*alleni* Knowl. & Fronk) p. 245 figs., PALMER Aphids Rocky Mt. Reg. 1952.—*A. peruviana* **sp. n.** Peru p. 133 figs., ESSIG Proc. Calif. Acad. Sci. **28**.—*A. wahnaga* **sp. n.** Colorado p. 131, HOTTES Proc. biol. Soc. Wash. **65** 1952.—*A. tigwatensa* apterous ♂ p. 195, oviparous ♀ ; *pawtincae* alate ♂ p. 196 ; *agathonica* alate ♂, oviparous ♀ p. 197 ; *pawtincae* apterous viviparous ♀ p. 200 ; *morrisoni* oviparous ♀ p. 201, HOTTES op. cit. **66**.

Anuraphis distincta [? **sp. n.**] Caspian steppes p. 57, MORDVILKO Trud. prikl. Ent. **14** 1929 [teste Hottes Pan-Pacif. Ent. **29** p. 148].—*A.* subgen. *Clavisiphon* see *Eucarazzia*.

Aphis compositellae, *nigra* characters and status discussed pp. 109–118 figs., STROYAN Proc. R. ent. Soc. Lond. (B) **22**.—*A. mizutakarashi* p. 434, *heraclicola* p. 435, *taukogi*, *neopolygonii* p. 436 **spp. n.** Japan figs., SHINJI Zool. Mag., Tokyo **51**

1939.—*A. tetrapteralis* Ckll. (=*piutapa* Hottes & Wehrle, *Pergandeida cahuille* Dickson) p. 150, HOTTES Pan-Pacif. Ent. **29.**—*A. nelsonensis* p. 171, *healyi* p. 175 **spp. n.** New Zealand figs., COTTIER Bull. N.Z. Dep. sci. ind. Res. no. 106.—*A. alstroemeriae* p. 78, *marthae* p. 86 **spp. n.** Chile figs., ESSIG Proc. Calif. Acad. Sci. **28.**—*A. steinbergi* **sp. n.** Ural region p. 105 fig., SHAPOSHNIKOV Trud. zool. Inst. Akad. Nauk SSSR **11** 1952.—*A. roripae* Palm. p. 169, *rubifolii* Thomas p. 171 from *Cerosipha* figs., PALMER Aphids Rocky Mt. Reg. 1952.—*A. ochrocentri* see *Bipersona*.

Aphrastasia ishiharai In. (from *Adelges*) a var. of *pectinatae* p. 59 figs., INOUYE Bull. Hokkaido For. exp. Sta. no. 15 1945 [re-issued as Bull. Sapporo Govt. For. exp. Sta. no. 15 : 44].

Aspidaphis adjuvans Wlk. (=*polygoni* Gill.) p. 188 figs., PALMER Aphids Rocky Mt. Reg. 1952.

Betulaphis pelei **sp. n.** Greenland p. 23 fig., HILLE RIS LAMBERS Medd. Grønland **136** 1952.

Bipersona ochrocentri Ckll. from *Aphis* p. 247 figs., PALMER Aphids Rocky Mt. Reg. 1952.

Brachycaudus iranicus **sp. n.** Persia p. 93 figs., DAVATCHI & REMAUDIÈRE Rev. Path. vég. **32.**

Calaphis arctica **sp. n.** Greenland p. 22 fig., HILLE RIS LAMBERS Medd. Grønland **136** 1952.—*C. granovskyi* p. 65, *viridipallida* p. 66 **spp. n.** Colorado etc. figs., PALMER Aphids Rocky Mt. Reg. 1952.—*C. minutissima* **sp. n.** England p. 13 fig., STROYAN Ent. mon. Mag. **89.**

Capitophorus Van der Goot (=subgen. *Capitophorinus* Börn.) p. 132; subgen. *Pleotrichophorus* raised to gen. p. 114; chaetotaxy of World spp. p. 132; key to spp. p. 138; *elaeagni* del Guercio (=*cirsii* Nev. p. 150, *braggii* Gill. p. 151); *hippophaes* Wlk. (=*gillettei* Theo.) **subsp. n.** *javanicus* Java p. 156; *essigi* **sp. n.** N. America p. 156 (note); *horni* **subsp. n.** *gynoxantha* Europe p. 162; *inulae* Pass. (?=*pakansus* Hottes & Frison) p. 165 figs., HILLE RIS LAMBERS Temminckia **9.**—*C. longipes* Gill. & Palm. p. 261, *packi* Knowl. p. 264, *sporadicus* K. p. 271 from *Macrosiphum*; *pseudoglandulosus* **sp. n.** Colorado etc. p. 265 figs., PALMER Aphids Rocky Mt. Reg. 1952.—*C. chrysanthemi* see *Pleotrichophorus*.

Cavariella borealis **sp. n.** Greenland p. 16 fig., HILLE RIS LAMBERS Medd. Grønland **136** 1952.

Cerciaphis emblica **sp. n.** India p. 435 figs., PATEL & KULKARNI J. Bombay nat. Hist. Soc. **51.**

Cerosipha lycopicola **sp. n.** Japan p. 432 figs., SHINJI Zool. Mag., Tokyo **51** 1939.—*C.* (*Uraphis*) *carolibörneri* **sp. n.** France p. 253 figs., REMAUDIÈRE Rev. Path. vég. **31** 1952.—*C. roripae*, *rubifolii* see *Aphis*.

Chaetosiphon (*Pentatrichopus* Börn. a subgen. p. 51, key p. 65); scope p. 51, key to subgenn. and spp. p. 55; (*C.*) *alpestre* (with **subsp. n.** *airolensis* p. 58) Switzerland p. 56, (*P.*) *thomasi* (with **subsp. n.** *jacobi* p. 72 (note)) N. America **spp. n.**; (*P.*) *fragaefolii* nomenclature discussed p. 72; (*C.*) *chaetosiphon* **subsp. n.** *montanum* Switzerland p. 63 figs., HILLE RIS LAMBERS Temminckia **9.**

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Cinara burrilli Wils. from *Lachnus* p. 26; *curvipes* Patch (=*utahensis* Knowl. & Sm.) p. 28; *pseudotaxifoliae* **sp. n.** Colorado etc. p. 42; *villosa* Gill. & Palm. a sp. not var. of *apini* p. 51 figs., PALMER Aphids Rocky Mt. Reg. 1952.—*C. canatra* p. 85, *canadensis* p. 86 **spp. n.** Ontario, HOTTES & BRADLEY Proc. biol. Soc. Wash. **66.**—*C. piñona* p. 153, *wahtolca* p. 155 **spp. n.** Colorado; *wahluca* characters p. 157; *tujafilina* Del G. (=*winonkae* Hottes) p. 158; *wahhaka* apterous ♂ p. 199, HOTTES Proc. biol. Soc. Wash. **66.**—*C. serrai* p. 159, *kinoi* p. 161, *lassenensis* p. 162, *americana* p. 164, *californica* p. 166, *onatei* p. 167, *anzai* p. 169, *inscripta* p. 170, *oregoni* p. 171, *alacra* p. 205, *vagabunda* p. 206, *nigrita* p. 208, *hirta* p. 209 **spp. n.** U.S.A. figs., HOTTES & ESSIG Proc. biol. Soc. Wash. **66.**—*C. pinea* Mordv. (=*pini* auct. nec L., *pineti*

Koch nec F.) p. 149, HOTTES Pan-Pacif. Ent. **29**.—*C. obscura* **sp. n.** Saskatchewan p. 431 figs., BRADLEY Canad. Ent. **85**.—*C.* (*Cinaria*) *intermedia* **sp. n.** Czechoslovakia p. 30 figs., PAŠEK Zool. ent. Listy **2**.

Cryptomyzus a good gen. p. 83, morphological relation to other genn. p. 86; key to spp. p. 88; *alboapicalis* Theo. (=*Myzella ulmeri* Börn.) p. 93 (note); *ballotae* England p. 94, *heinzei* Germany p. 102 **spp. n.**; *galeopsidis* **subspp. n.** *citrinus* p. 101, *dickeri* p. 102 Europe; *korschelti* Börn. (=*elaeagni* Börn.) p. 104 figs., HILLE RIS LAMBERS Temminckia **9**.

Decorosiphon p. 59, *corynothrix* p. 60 further descriptions figs., HEINZE Zool. Anz. **150**.

Drepanosiphum californicum **sp. n.** California p. 570, MORDVILKO Ann. Mag. nat. Hist. (10) **2** 1928.

Dreyfusia todomatsui **sp. n.** Japan p. 73 figs., INOUYE Bull. Hokkaido For. exp. Sta. no. 15 1945 [re-issued as Bull. Sapporo Govt. For. exp. Sta. no. 15: 57].

Dysaphis notes on some spp. pp. 95–102 (synonymy, keys p. 100); *angelicae* p. 95, *foeniculus* p. 97, *inculta* Wlk. sensu Börner (=*apiifolia* Theob., *ferruginea-striata* Essig p. 96) p. 98 characters figs., STROYAN Proc. R. ent. Soc. Lond. (B) **22**.

Eucarazzia del G. (=*Anuraphis* subgen. *Clavisiphon* del G.) a valid gen., characters p. 31; *elegans* Ferr. (=*picta* del G., *Rhopalosiphoninus salviae* Hall, *R. chicotei* Gomez-Menor Ortega) from *Rhopalosiphum* p. 34, HILLE RIS LAMBERS Temminckia **9**.

Forda flavula see *Prociphilus erigeronensis*.

Fullawayella lonicerae [? **sp. n.**] Ussuri p. 79, MORDVILKO Trud. prikl. Ent. **14** 1929 [teste Hottes Pan-Pacif. Ent. **29** p. 148].

Gootiella alba **sp. n.** Ural region p. 94, SHAPOSHNIKOV Trud. zool. Inst. Akad. Nauk SSSR **11** 1952.

Hiberaphis lasiocarpae **sp. n.** Sweden p. 234 figs., OSSIANNILSSON Opusc. ent. **18**.

Hoplocallis **gen. n.** p. 151, *ruperti* **sp. n.** Czechoslovakia p. 152 figs., PINTERA Zool. ent. Listy **1** 1952.—*H. komáreki* **sp. n.** Slovakia p. 193 figs., PAŠEK Zool. ent. Listy **2**.

Hyadaphis mellifera Hottes synonymy and discussion of status p. 151, HOTTES Pan-Pacif. Ent. **29**.

Hyalopterus skorkini **sp. n.** Odessa p. 88, MORDVILKO Trud. prikl. Ent. **14** 1929.

Hyperomyzus subgenn. *Rhopalomyzus*, *Arthromyzus* see *Rhopalosiphoninus*; (*H.*) *theobaldi* see *R. staphyleae*.

Israelaphis **gen. n.** p. 127, *carmini* **sp. n.** Israel p. 128 fig., ESSIG Pan-Pacif. Ent. **29**.

Lachnus (*Schizodryobius*) *börneri* **sp. n.** Czechoslovakia p. 29 figs., PAŠEK Zool. ent. Listy **2**.—*L. burrilli* see *Cinara*.

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Larvaphis **subgen. n.** (type *brevicornis* sp. n.) see *Thripsaphis*.

Macrosiphum chilensis p. 116, *huantana* p. 120, *muermosa* p. 122, *nuble* p. 124, *tucumani* (also Argentina) p. 131 Chile, *edrossi* Peru p. 118 **spp. n.** figs., ESSIG Proc. Calif. Acad. Sci. **28**.—*M.* (*Sitobion*) *sijui* **sp. n.** Kenya p. 199 figs., EASTOP Ent. mon. Mag. **89**.—*M. wasintae* alate viviparous ♀ p. 199, HOTTES Proc. biol. Soc. Wash. **66**.—*M. anomellum* Knowl. & Allen p. 292, *flavilum* K. & A. p. 306, *zerohypsi* K. & A. p. 332 from *Mucrotrichaphis*; *escalantii* Knowl. (=*Tritogenaphis gutierreziae* Pack & Knowl.) p. 304; *martini* Ckll. from *Nectarophora* p. 315 figs., PALMER Aphids Rocky Mt. Reg. 1952.—*M. longipes*, *sporadicus*, *packi* see *Capitophorus*; *stanleyi* see *Amphorophora*.

Mucrotrichaphis flavilum, *anomellum*, *zerohypsi* see *Macrosiphum*.

Myzella ulmeri see *Cryptomyzus alboapicalis*.

Myzocallis maureri Swain (=*kiowanica* Hottes, *tonkawa* Hottes) p. 73 figs., PALMER Aphids Rocky Mt. Reg. 1952.—*M. bodenheimeri* ♂, ovi-

parous ♀ p. 433 figs., SWIRSKI Bull. Res. Council Israel **2**.—*M. californicus* seasonal variations pp. 43–46 figs., HOTTES Pan-Pacif. Ent. **29**.

Myzodes persicae anholocyclic form p. 95 figs., WALDHAUER NachrBl. dtsch. PflSchDienst (N.F.) **7**.

Myzodium modestum characters p. 13 fig., HILLE RIS LAMBERS Medd. Grønland **136** 1952.

Myzotoxoptera heikinheimoi see *Rhopalosiphoninus* subgen. *Submegoura*.

Myzus (*Nectarosiphon*) *polaris* **sp. n.** Greenland p. 11 fig., HILLE RIS LAMBERS Medd. Grønland **136** 1952.—*M. timpanogos* Knowl. from *Utamphorophora* p. 343 figs., PALMER Aphids Rocky Mt. Reg. 1952.—*M. filaginis* see *Pleotrichophorus*.

Nectarophora martini see *Macrosiphum*.

Neolachnus **gen. n.** for *rosae* Cholodk. p. 55, MORDVILKO Trud. prikl. Ent. **14** 1929.—*N.* status discussed p. 147, HOTTES Pan-Pacif. Ent. **29**.

Neophyllaphis totarae **sp. n.** New Zealand p. 312 figs., COTTIER Bull. N.Z. Dep. sci. ind. Res. no. 106.

Neosymydobius intermedius Gill. & Palm. from *Symydobius* p. 77 figs., PALMER Aphids Rocky Mt. Reg. 1952.

Neothomasia saliciniger see *Periphyllus*.

Neotrama Baker *caudata* Guer. correct name for type; (*Tactilotrama* C.B. a subgen.) p. 399; *caudata* **subsp. n.** *maritima* England, Channel Is., ? Holland p. 402 figs., EASTOP Trans. R. ent. Soc. Lond. **104**.

Neuquenaphis michelbacheri p. 66, *chilensis* p. 67 **spp. n.** Chile figs., ESSIG Proc. Calif. Acad. Sci. **28**.

Nevskya **gen. n.**, *fungifera* **sp. n.** Sweden p. 233 fig., OSSIANNILSSON Opusc. ent. **18**.

Paducia aterrima **sp. n.** Greenland p. 17 fig., HILLE RIS LAMBERS Medd. Grønland **136** 1952.

Paracerataphis **gen. n.**, *tremulae* **sp. n.** Ussuri p. 34, MORDVILKO Trud. prikl. Ent. **14** 1929.—*P.* status discussed p. 147, HOTTES Pan-Pacif. Ent. **29**.

Parastomaphis **subgen. n.** (type *graffii* Chol.) see *Stomaphis*.

Pemphigus groenlandicus characters p. 28 (with **subsp. n.** *crassicornis* p. 30); *salicicola* **sp. n.** p. 31 Greenland figs., HILLE RIS LAMBERS Medd. Grønland **136** 1952.—*P. lasii* Ckll. from *Tychea* p. 365 figs., PALMER Aphids Rocky Mt. Reg. 1952.

Pentatrichopus Börn. a subgen. of *Chaetosiphon*, q.v.

Pergandeida cahuille see *Aphis tetrapteralis*.

Periphyllus saliciniger Knowl. from *Neothomasia* p. 101 figs., PALMER Aphids Rocky Mt. Reg. 1952.—*P. aceris* **subsp. n.** *minutus* Ural region p. 98, SHAPOSHNIKOV Trud. zool. Inst. Akad. Nauk SSSR **11** 1952.

Pineus harukawai p. 31, *hosoyai* p. 32, *kôno-washiyai* p. 34, *matsumurai* p. 37 **spp. n.** Japan figs., INOUYE Bull. Hokkaido For. exp. Sta. no. 15 1945 [re-issued as Bull. Sapporo Govt. For. exp. Sta. no. 15: 22, 23, 25, 27].

Pleotrichophorus Börn. raised to gen., not subgen. of *Capitophorus* p. 114, scope p. 115, key to spp. p. 118; *chrysanthemi* Theo. from *Capitophorus* p. 119; *filaginis* Schout. from *Myzus* p. 123 figs., HILLE RIS LAMBERS Temminckia **9**.

Plocamaphis braggii, *flocculosa* see *Pterocomma*.

Prociphilus erigeronensis Thomas (= *Forda flavula* Rohw.) p. 367 figs., PALMER Aphids Rocky Mt. Reg. 1952.

Protolachnus nigricola **sp. n.** Czechoslovakia p. 33 figs., PAŠEK Zool. ent. Listy **2**.

Pterocomma groenlandica **sp. n.** Greenland p. 18 fig., HILLE RIS LAMBERS Medd. Grønland **136** 1952.—*P. braggii* Gill. & Palm. p. 106, *flocculosa* Weed p. 107 from *Plocamaphis*; *pseudopopulea* **sp. n.** Colorado etc. p. 109 figs., PALMER Aphids Rocky Mt. Reg. 1952.

Rhopalomyzus characters p. 35; keys to subgenn. and spp. p. 38; *poae* Gill. (=*alpigenae* Börn. & Bl.) p. 45; *grabhami* Ckll. from *Rhopalosiphum* p. 45 figs., HILLE RIS LAMBERS Temminckia **9.**—*R. ascalonicus* compared with *Myzodes persicae* p. 188, MÜLLER Z. angew. Ent. **35.**

Rhopalosiphoninus Baker (=*Hyperomyzus* subgenn. *Rhopalomyzus* Börn., *Arthromyzus* Börn.) characters p. 2; (*Submegoura* **subgen. n.** p. 3); key to subgenn. and spp. p. 6; *tulipaellus* Theo. a subsp. of *staphyleae* p. 17; *staphyleae* Koch (=*latysiphon* Theo., *Hyperomyzus theobaldi* Börn.) p. 25; (*S.*) *heikinheimoi* Börn. from *Myzotoxoptera* p. 28 figs., HILLE RIS LAMBERS Temminckia **9.**—*R. salviae, chicotei* see *Eucarazzia elegans.*

Rhopalosiphum elegans see *Eucarazzia*; *grabhami* see *Rhopalomyzus.*

Saltusaphis africana **sp. n.** Kenya p. 202 figs., EASTOP Ent. mon. Mag. **89.**—*S. intermedia* see *Subsaltusaphis.*

Schizaphis pyri **sp. n.** Ural region p. 99 fig., SHAPOSHNIKOV Trud. zool. Inst. Akad. Nauk SSSR **11** 1952.

Semiaphis lonicerina **sp. n.** Ural region p. 106 fig., SHAPOSHNIKOV t.c.

Sensoriaphis **gen. n.** p. 96, *nothofagi* **sp. n.** New Zealand p. 97 figs., COTTIER Bull. N.Z. Dep. sci. ind. Res. no. 106.

Siphonophora lactucae Passerini status discussed p. 150, HOTTES Pan-Pacif. Ent. **29.**

Sitomyzus **gen. n.**, *vibei* **sp. n.** Greenland p. 9 fig., HILLE RIS LAMBERS Medd. Grønland **136** 1952.

Sminthuraphis **gen. n.**, *ulrichi* **sp. n.** Germany p. 224 figs., QUEDNAU Zool. Anz. **150.**

Spicaphis **gen. n.**, *michelbacheri* **sp. n.** Chile p. 69 figs., ESSIG Proc. Calif. Acad. Sci. **28.**

Stomaphis (*Parastomaphis* **subgen. n.** pp. 163, 171), PAŠEK Acta Soc. zool. bohemoslov. **17.**

Submegoura **subgen. n.** (type *Myzotoxoptera heikinheimoi* Börn.) see *Rhopalosiphoninus.*

Subsaltusaphis **gen. n.** for *Saltusaphis intermedia* HRL p. 224 figs., QUEDNAU Zool. Anz. **150.**

Symydobius intermedius see *Neosymydobius.*

Tactilotrama reduced to subgen. of *Neotrama*, q.v.

Thripsaphis (*Larvaphis* **subgen. n.**) *brevicornis* **sp. n.** Sweden p. 237 fig., OSSIANNILSSON Opusc. ent. **18.**—*T. foxtonensis* **sp. n.** New Zealand p. 82 figs., COTTIER Bull. N.Z. Dep. sci. ind. Res. no. 106.—*T.* (*Trichocallis*) *vibei* p. 25, (s. str.) *sensoriata* p. 27 **spp. n.** Greenland figs., HILLE RIS LAMBERS Medd. Grønland **136** 1952.

Tlja Mordv. (=*Lactucobium* H.R.L) p. 174, HILLE RIS LAMBERS Temminckia **9.**

Tritogenaphis gutierreziae see *Macrosiphum escalantii.*

Tuberculatus multituberculatus, flavus **spp. n.** Ussuri p. 40, MORDVILKO Trud. prikl. Ent. **14** 1929.

Tychea lasii see *Pemphigus.*

Utamphorophora timpanogos see *Myzus.*

ALEURODIDAE.

Some Malayan species of Aleurodidae, TAKAHASHI 1952 Mushi **24**: 21–27, 4 figs.

Aleuroplatus (*Orchamus*) *samoanus* pupa, ♂ p. 21 figs., DUMBLETON Proc. Hawaii. ent. Soc. **15.**—*A. spinus* pupa case p. 23, TAKAHASHI Mushi **24** 1952.

Aleurotrachelus zonatus p. 24, *minutus, grewiae* p. 25 **spp. n.** Malaya; *rugosa* pupa case p. 27 figs., TAKAHASHI t.c.

Rachisphora malayensis **sp. n.** Malaya p. 22 fig., TAKAHASHI t.c.

COCCIDAE.

Contribution to Diaspidinae of Yugoslavia, BACHMANN Trav. Acad. serbe Sci. **31** Inst. Ecol. Biogéogr. no. 4: 175–184, 1 fig.

Diaspidinae of France, Europe, N. Africa and Mediterranean region, pt. 4, BALACHOWSKY Actual. sci. indust. no. 1202: 1–207, 46 pls.

Revision of spiny Pseudococcini (key p. 284), BALACHOWSKY Bull. Soc. Sci. nat. Maroc **31** : 281–285.

Coccoidea of Turkey, I–III, BODENHEIMER Rev. Fac. Sci. Univ. Istanbul (B) **17** 1952 : 315–351 ; **18** : 1–61, 91–164, 63 figs.

Atlas of scale insects of N. America, Pseudococcidae, pt. 2 (keys to genn. p. 282), FERRIS Atl. Scale Ins. N. Amer. Vol. VI pp. i–vii & 279–506, 183 figs.

Scale insects collected in China, pt. IV, FERRIS Microentomology **18** : 59–84, 17 figs.

Revision of Italian Coccidae, VII, VIII, LUPO Boll. Lab. Ent. agr. Portici **12** : 16–44, 13 figs., 74–97, 12 figs.

Grandpré and Charmoy authors of spp. of Coccoidea described from Mauritius, 1899, MAMET Proc. R. ent. Soc. Lond. (A) **28** : 149–152, 2 figs.

Revision of scale-insects of Florida, MERRILL Bull. Pl. Bd Fla. no. 1 : 1–143, 112 figs.

Some non-diaspine Coccoidea of Malaya, TAKAHASHI 1952 Insecta matsum. **18** : 9–17, 5 figs.

Revision of Czech Diaspidinae, ZAHRADNÍK 1952 Acta ent. Mus. nat. Pragae **27** no. 387 : 89–200, 43 pls.

Acanthopulvinaria **gen. n.** for *Pulvinaria orientalis* Nass. (type), *P. discoidalis* Hall p. 301, BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Amonostherium hymenocleae Ckll. from *Pseudococcus* p. 287 figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Anapulvinaria **gen. n.** for *Pulvinaria pistaciae* Bod. p. 300, BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Anatolaspis **gen. n.**, *abedini* **sp. n.** Turkey p. 29 figs., BODENHEIMER Rev. Fac. Sci. Univ. Istanbul (B) **18**.

Andaspis yunnanensis **sp. n.** Yunnan p. 59 figs., FERRIS Microentomology **18**.

Antonina pretiosa **sp. n.** U.S.A. p. 298 figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.—*A. parrotti* see *Antoninoides*.

Antoninoides **gen. n.** for *Antonina parrotti* Ckll. p. 300 fig., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Aonidia pinicola see *Gomezmenoraspis*.

Aonidiella crenata **sp. n.** Belg. Congo p. 77 figs., BALACHOWSKY Rev. Zool. Bot. afr. **47**.—*A. messengeri* **sp. n.** Ryukyu Is. p. 35 figs., MCKENZIE Bull. Calif. Dep. Agric. **42**.

Artemisaspis see *Rhizaspidiotus* ; *artemisiae* see *R. mesasiaticus*.

Aspidaspis dentilobus **sp. n.** S. Persia p. 99 figs., KAUSSARI & BALACHOWSKY Rev. Path. vég. **32**.

Aspidiotus nothopanacis **sp. n.** Yunnan p. 66 figs., FERRIS Microentomology **18**.

Aulacaspis rosae morphology of 2nd instar p. 471 figs., BORATYŃSKI Trans. R. ent. Soc. Lond. **104**.

Benaparlatoria **gen. n.** p. 19, *moityi* **sp. n.** Fr. Guinea p. 20 figs., BALACHOWSKY Rev. Path. vég. **32**.

Centrococcus lubersaci **sp. n.** E. Morocco p. 277 fig., BALACHOWSKY Bull. Soc. Sci. nat. Maroc **31**.

Ceroputo status discussed pp. 301–302, BALACHOWSKY Mitt. schweiz. ent. Ges. **26**.

Chionaspis salicis morphology of 2nd instar p. 469 figs., BORATYŃSKI Trans. R. ent. Soc. Lond. **104**.—*C. euonymi* nymphs, ♂, ♀ morphology pp. 113–135 figs., MODUGNO Boll. Zool. agr. Bachic., Milan **19**.—*C. pusa* p. 61, *ramakrishnai* p. 64 **spp. n.** India figs., PRABHAKER RAO Proc. R. ent. Soc. Lond. (B) **22**.

Chloropulvinaria **gen. n.** for *Coccus floccifera* Westw. (type) p. 299, *C. psidii* Mask., *Pulvinaria aurantii* Ckll. p. 300, BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Chnaurococcus trifolii Forb. (= *Ripersia tenuipes* Ckll.) p. 303, FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Chrysomphalus affinis see *Marginaspis*.

Coccidella see *Rhizoecus*.

Coccus hesperidum systematic position pp. 12–20; all stages, morphology pp. 27–53, 97–114 figs., DA FONSECA Brotéria, Lisbon Ci. nat. **22.**—*C. viridis*, *v. colemani* p. 252 further descriptions fig., PUTTARUDRIAH & CHANNABASAVANNA Indian Coffee **17.**—*C. tuberculatus* further description p. 11; *lumpurensis* p. 12, *cinnamomicolus* p. 13, *macarangicolus* p. 14, *cameronensis* p. 16 **spp. n.** Malaya figs., TAKAHASHI Insecta matsum. **18** 1952.—*C. floccifera*, *psidii* see *Chloropulvinaria*.

Crisicoccus azaleae Tinsl. from *Dactylopius* p. 305 fig., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Cryptoripersia salina Ehrh. from *Eriococcus* p. 308; *trichura* Ckll. (=*arizonensis* E.) from *Ripersia* p. 310 figs., FERRIS t.c.

Ctenochiton artemisiae see *Rhizopulvinaria*.

Dactylopius kingii, *sorghiellus* see *Pseudococcus*; *azaleae* see *Crisicoccus*.

Dentachionaspis centripetalis **sp. n.** Kashmir p. 64 figs., PRABHAKER RAO Proc. R. ent. Soc. Lond. (B) **22.**

Diaspidiotus bavaricus morphology of 2nd instar p. 461 figs., BORATYŃSKI Trans. R. ent. Soc. Lond. **104.**—*D. iranicus* **sp. n.** Persia p. 24 figs., KAUSSARI & BALACHOWSKY Rev. Path. vég. **32.**

Discococcus **gen. n.** for *Ehrhornia graminis* Ferr. (type) p. 314; *caricis* p. 315, *flabellatus* p. 317, *simplex* p. 323 California, *hopi* N. Arizona p. 321 **spp. n.** figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Distichlicoccus alkalinus Ckll. from *Pseudococcus* p. 326; *californicus* Ehrh. from *Trionymus* p. 328; *dasychloae* **sp. n.** Texas p. 330 figs., FERRIS t.c.

Dysmicoccus fimbriatulus Ckll. & King p. 333, *aurantius* Ckll. p. 334, *lasii* Ckll. p. 335 from *Ripersia*; *mcdanieli* Holl. p. 337, *roseotinctus* Ckll. & Ckll. p. 341, *texensis* Tinsl. p. 343 from *Pseudococcus*; *modocensis* **sp. n.** California p. 339 figs., FERRIS t.c.—*D. senegalensis* **sp. n.** Senegal p. 1047 figs., BALACHOWSKY Bull. Inst. franç. Afr. noire **15.**

Ehrhornia graminis see *Discococcus*.

Eremaspis acantholimoni **sp. n.** Istanbul p. 29 figs., BODENHEIMER Rev. Fac. Sci. Univ. Istanbul (B) **18.**

Eriococcus salinus see *Cryptoripersia*.

Eulecanium kosswigi p. 100, *tamaricis* p. 103 **spp. n.** Turkey figs., BODENHEIMER Rev. Fac. Sci. Univ. Istanbul (B) **18.**

Eurycoccus blanchardii King & Ckll. from *Ripersia*; *copallinae*, *yuccae* **spp. n.** N. America p. 349 figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Farinococcus cualatensis Ckll. p. 352, *olivaceus* C. (=*Lachnodiella acritocera* Chaff.) p. 356, *phoradendri* C. p. 358 from *Pseudococcus*; *guatemalensis* **sp. n.** Guatemala p. 354 figs., FERRIS t.c.

Ferrisiana floridana **sp. n.** Florida p. 360; *quaintancei* Tinsl. from *Pseudococcus*; *virgata* Ckll. (=*P. dasylirii* C.) p. 362 figs., FERRIS t.c.

Forbesaspis anatolica **sp. n.** Turkey p. 341 figs., BODENHEIMER Rev. Fac. Sci. Istanbul (B) **17** 1952.

Genistaspis **gen. n.** p. 348, *zelihae* **sp. n.** Turkey p. 350 figs., BODENHEIMER t.c.

Gomezmenoraspis **gen. n.** for *Aonidia pinicola* Leon. p. 185 figs., BALACHOWSKY Actual. sci. indust. no. 1202.

Heliococcus list of World spp. p. 236; *nivearum* **sp. n.** (with **subsp. n.** *austriacus* Tyrol p. 240) France p. 238 figs., BALACHOWSKY Mitt. schweiz. ent. Ges. **26.**—*H. wheeleri* King from *Pseudococcus* p. 363, FERRIS Atl. Scale Ins. N. Amer. Vol. VI.—*H. marginalis* **sp. n.** France p. 104 figs., GOUX Bull. mens. Soc. linn. Lyon **22.**

Hemiberlesia manengoubae **sp. n.** Cameroons p. 111; scope p. 113, key to World spp. p. 114 figs., BALACHOWSKY Beitr. Ent. **3.**—*H. sinensis* **sp. n.** Yunnan p. 66 figs., FERRIS Microentomology **18.**

Humococcus **gen. n.** for *Ripersia hilariae* Ferr. (type), *R. porterae* Ckll. p. 370; *atriplicis* (also lower California, Mexico) p. 371, *muhlenbergiae* p. 375 **spp. n.** U.S.A. figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Hypogeococcus spinosus **sp. n.** California p. 382 figs., FERRIS t.c.

Kermes sadrii p. 145, *bekiri* p. 147 **spp. n.** Turkey figs., BODENHEIMER Rev. Fac. Sci. Univ. Istanbul (B) **18.**

Kuwanaspis longissima **sp. n.** India p. 66 figs., PRABHAKER RAO Proc. R. ent. Soc. Lond. (B) **22.**

Lachnodiella acritocera see *Farinococcus olivaceus.*

Lecaniodiaspis duriana **sp. n.** Malaya p. 11 figs., TAKAHASHI Insecta matsum. **18** 1952.

Lecanopsis key to ♀♀ of USSR p. 280; *porifera* Stalingrad province, Crimea, Ukraine, Georgia, Armenia p. 282, *taurica* Crimea p. 285, *terrestris* Ukraine, S. Ural p. 287, *festucae* Ukraine, Crimea, N. Caucasus p. 288, *iridis* p. 291, *shutovae* p. 293 Maritime Province **spp. n.** figs., BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.—*L. longicornis* see *Vittacoccus.*

Lepidosaphes ulmi morphology of 2nd instar p. 467 figs., BORATYŃSKI Trans. R. ent. Soc. Lond. **104.**—*L. keteleeriae* **sp. n.** Yunnan p. 61 figs., FERRIS Microentomology **18.**

Leucaspis japonica, cockrelli see *Lopholeucaspis.*

Lindingaspis benaensis **sp. n.** Fr. Guinea p. 110 figs., BALACHOWSKY Bull. Soc. ent. Fr. **58.**

Lopholeucaspis **gen. n.** for *Leucaspis japonica* Ckll. (type), *cockrelli* de Charm. p. 153 figs., BALACHOWSKY Actual. sci. indust. no. 1202.

Luzulaspis key to Palaearctic spp.; *taurica* Crimea p. 274, *kondarensis* Tadzhikistan p. 276, *bisetosa* p. 277, *grandis* p. 279 Maritime Province, *caucasica* Georgia p. 278 **spp. n.** figs., BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Macrocerococcus status discussed pp. 301–302, BALACHOWSKY Mitt. schweiz. ent. Ges. **26.**

Marginaspis affinis Leon. (=*thevetiae* Hall) from *Chrysomphalus* p. 110, BALACHOWSKY Bull. Soc. ent. Fr. **58.**

Melanaspis vilardeboi **sp. n.** Fr. Guinea p. 147 figs., BALACHOWSKY Rev. franç. Ent. **20.**—*M. louristanus* **sp. n.** Persia p. 28 figs., BALACHOWSKY & KAUSSARI Rev. Path. vég. **32.**

Misericoccus **gen. n.** for *Ripersia arenaria* Doane & Steinw. p. 384 figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Nipaecoccus ledi Ckll. from *Pseudococcus* p. 389; *nipae* Mask. (=*Ripersia serrata* Tinsl.) p. 391, FERRIS t.c.

Octaspidiotus araucariae **sp. n.** Hawaii p. 89 figs., ADACHI & FULLAWAY Proc. Hawaii. ent. Soc. **15.**

Parafairmairia delicata Latvia p. 272, *hissarica* Tadzhikistan p. 273 **spp. n.** figs., BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Paralecanopsis **gen. n.**, *turcica* **sp. n.** Turkey p. 109 figs., BODENHEIMER Rev. Fac. Sci. Univ. Istanbul (B) **18.**

Parapedronia **gen. n.** for *Pedronia spinigera* Goux p. 283, BALACHOWSKY Bull. Soc. Sci. nat. Maroc **31.**

Parlatoria cupressi **sp. n.** Yunnan p. 61 figs., FERRIS Microentomology **18.**—*P. orientalis* **sp. n.** S. India p. 67 figs., PRABHAKER RAO Proc. R. ent. Soc. Lond. (B) **22.**

Pedronia festeriana Lizer y Trelles status discussed p. 283, BALACHOWSKY Bull. Soc. Sci. nat. Maroc **31.**—*P. spinigera* see *Parapedronia.*

Phenacaspis forsythiae **sp. n.** Korea p. 220 figs., KANDA Zool. Mag., Tokyo **53** 1941.—*P. centreesa, dryina, ericacea* p. 63, *keteleeriae, osmanthi, poloosta* p. 64, *pudica* p. 65 **spp. n.** Yunnan figs., FERRIS Microentomology **18.**

Phenacoccus celtisifoliae Holl. (=*picrospinus* Ferr.); *dearnessi* King (=*regnillhoi* Holl.) p. 397; *flaveolus* Ckll. (=*Ripersia minima* Tinsl. & King, *Pseudococcus cockerelli* King & Tinsl.) from *Ripersia* p. 398; *rubivorus* Ckll. (=*ripersioides* Ckll. & Ckll.) p. 401; *solani* Ferr. (=*wilmattae* Ckll.) p. 403 figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.—*P. simplex* see *Puto yuccae.*

Porococcus coxatus **sp. n.** Panama p. 405 fig., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Psilococcus **gen. n.** p. 269, *ruber* **sp. n.** Maritime Province p. 270 fig., BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Pseudantonina texana **sp. n.** Texas p. 416 fig., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.—*P. spirapuncta* see *Syrmococcus*.

Pseudaonidia gigantea p. 1514, *pavettae* p. 1517 **spp. n.** Fr. Guinea figs., BALACHOWSKY Bull. Inst. franç. Afr. noire **15**.

Pseudococcus kingii Ckll. p. 419, *sorghiellus* Forbes p. 421 from *Dactylopius* figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.—*P. laingi* **sp. n.** Turkey p. 121 figs., BODENHEIMER Rev. Fac. Sci. Univ. Istanbul (B) **18**. —*P. njalensis* all stages p. 293 figs., MAGNIN Agron. trop., Nogent **8**.—*P. mcdanieli, roseotinctus, texensis* see *Dysmicoccus*; *ledi* see *Nipaecoccus*; *aphyllonis, neomexicanus, atriplicis* see *Spilococcus*; *claviger, shaferi* see *Trionymus*; *alkalinus* see *Distichlicoccus*; *quaintancei* see *Ferrisiana*; *dasylirii* see *F. virgata*; *wheeleri* see *Heliococcus*; *hymenocleae* see *Amonostherium*; *cualatensis, phoradendri, olivaceus* see *Farinococcus*; *cockerelli* see *Phenacoccus flaveolus*.

Pseudoparlatoria giffardi **sp. n.** Hawaii p. 87 figs., ADACHI & FULLAWAY Proc. Hawaii. ent. Soc. **15**.

Pulvinaria costata Maritime Province p. 297, *kirgisica* Kazakhstan, *rhizophila* Kirghizistan p. 298 **spp. n.** figs., BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.—*P. turkestanica, artemisiae, retamae, dianthi* see *Rhizopulvinaria*; *aurantii* see *Chloropulvinaria*; *pistaciae* see *Anapulvinaria*; *orientalis, discoidalis* see *Acanthopulvinaria*.

Puto status and synonymy discussed pp. 301–302; diagnosis p. 302; list of W. Palaearctic spp. p. 303, BALACHOWSKY Mitt. schweiz. ent. Ges. **26**.—*P. janetscheki* p. 295, *alpinus* p. 298 **spp. n.** French Alps figs., BALACHOWSKY Mitt. schweiz. ent. Ges. **26**.—*P. yuccae* Coq. (= *Phenacoccus simplex* King) p. 423, FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Quadraspidiotus schneideri [nom. nud.] bionomics p. 612, BACHMANN Landw. Jb. Schweiz **66** 1952; **sp. n.** Switzerland p. 357, BACHMANN Mitt. schweiz. ent. Ges. **25** 1952 (Dec.); considered earlier name than *Q. mařani* Zahradník 1952 [Dec.] [Cf. Z.R. **89** 1952 p. 447.] p. 359 (note) and further described p. 363 figs., BACHMANN Z. angew. Ent. **34**.—*Q. piri* (all stages pp. 8–36), *mařani, ostreaeformis, perniciosus* characters pp. 229–250 figs., DUŠKOVÁ Acta Soc. zool. bohemoslov. **17**.—*Q. ostreaeformis* p. 463, *zonatus* p. 465 morphology of 2nd instar figs., BORATYŃSKI Trans. R. ent. Soc. Lond. **104**.—*Q. pelagijae* **sp. n.** Yugoslavia p. 178 fig., BACHMANN Trav. Acad. serbe Sci. **31** Inst. Ecol. Biogéogr. no. 4.—*Q. cryptus* **sp. n.** Yunnan p. 67 figs., FERRIS Microentomology **18**.

Ramachandraspis **gen. n.** p. 66, *fenestrata* **sp. n.** India p. 67 figs., PRABHAKER RAO Proc. R. ent. Soc. Lond. (B) **22**.

Rhizaspidiotus Macg. (= *Artemisaspis* Borkh.); *mesasiaticus* Borkh. (= *A. artemisiae* Borkh. nec Hall) p. 29 (note), BALACHOWSKY Actual sci. indust. no. 1202.

Rhizoecus Künckel d'Herculais (= *Coccidella* Hambleton) p. 426; *cacticans* H. from *Ripersiella* p. 432; *californicus* p. 434, *epiphylli* p. 442 **spp. n.** California figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Rhizopulvinaria **gen. n.** for *Pulvinaria turkestanica* Arch. (valid sp. not var. of *artemisiae*), *P. artemisiae* Sign., *P. retamae* Hall, *Ctenochiton artemisiae* Hall, *P. dianthi* Bod. p. 301; key to spp. of USSR p. 303; *turkmenica* p. 304, *virgulata* (type) (also Persia) p. 309 Turkmenistan, *spinifera* Ukraine, Georgia p. 305, *armeniaca* p. 306, *megriensis* p. 307, *grandicula* p. 314 Armenia, *minima* (also Kirghizistan) p. 310, *hissarica* p. 314 Tadzhikistan, *variabilis* Stalingrad province p. 311, *viridis* Crimea p. 312, *pyrethri* W. Kazakhstan province p. 313, *transcaspica* Uzbekistan, Turkmenistan p. 316 **spp. n.** figs., BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

Ripersia ankarana **sp. n.** Turkey p. 125 figs., BODENHEIMER Rev. Fac. Sci. Univ. Istanbul (B) **18.**—*R. wünni* **sp. n.** Germany p. 235 figs., REYNE Ent. Ber., Amst. **14.**—*R. arenaria* see *Misericoccus*; *serrata* see *Nipaecoccus nipae*; *flaveola* (*minima*) see *Phenacoccus*; *sporoboli* see *Tridiscus*; *magna* see *Trionymus*; *trichura* see *Cryptoripersia*; *fimbriatula, aurantia, lasii* see *Dysmicoccus*; *blanchardii* see *Eurycoccus*; *hilariae, porterae* see *Humococcus*; *tenuipes* see *Chnaurococcus trifolii.*

Ripersiella cacticans see *Rhizoecus.*

Rugaspidiotinus **gen. n.** for *Rugaspidiotus circumdatus* Ferr. (type), *fuscitatis* Ferr., *heimi* Balach. p. 27, BALACHOWSKY Actual. sci. indust. no. 1202.

Rugaspidiotus circumdatus, fuscitatis, heimi see *Rugaspidiotinus.*

Saissetia zanzibarensis **sp. n.** Zanzibar p. 582 fig., WILLIAMS Bull. ent. Res. **44.**

Selenaspidus albus p. 53, *rubidus* p. 57 **spp. n.** California figs., MCKENZIE Bull. Calif. Dep. Agric. **42.**

Spilococcus aphyllonis Ckll. p. 464, *atriplicis* Ckll. (=*eriogoni* Ehrh.) p. 466, *neomexicanus* Tinsl. p. 468 from *Pseudococcus*; *reducta* **sp. n.** California p. 470 figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Spinococcus see *Synacanthococcus.*

Synacanthococcus Morr. (=*Spinococcus* Borkh.) p. 282, BALACHOWSKY Bull. Soc. Sci. nat. Maroc **31.**

Syrmococcus **gen. n.** for *Pseudantonina spirapuncta* Hoke (type) p. 472; *pecosensis* **sp. n.** Texas p. 473 figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.

Tridiscus multiorbis **sp. n.** California p. 478; *sporoboli* Ckll. from *Ripersia* p. 480 fig., FERRIS t.c.

Trimerococcus **gen. n.** p. 177, *icosianus* **sp. n.** Algiers p. 179 figs., BALACHOWSKY Bull. Soc. Hist. nat. Afr. N. **43** 1952.

Trionymus claviger King & Tinsl. p. 484, *shaferi* Holl. p. 492 from *Pseudococcus*; *magnus* Ckll. & Ckll. from *Ripersia* p. 486; *merrilli* p. 488, *mocus* **spp. n.** U.S.A.; *rostellum* Hoke (=*vallis* Ferr.) p. 490 figs., FERRIS Atl. Scale Ins. N. Amer. Vol. VI.—*T. californicus* see *Distichlicoccus.*

Vittacoccus **gen. n.** for *Lecanopsis longicornis* Green p. 271, BORKHSENIUS Trud. zool. Inst. Akad. Nauk SSSR **12** 1952.

THYSANOPTERA.

Thysanoptera of Samoa, BIANCHI Proc. Hawaii. ent. Soc. **15**: 93–108, 3 pls.

Taxonomy of S. African Thysanoptera, including revision of Trybom's types, HARTWIG 1952 Ent. Mem. Dep. Agric. S. Afr. **2**: 341–499, 110 figs.

Brazilian Thysanoptera, III, HOOD 1952 Proc. biol. Soc. Wash. **65**: 141–176.

Supplement to catalogue of Indian Thysanoptera, MARGABANDHU & ANANTHAKRISHNAN Indian J. Ent. **15**: 183–190.

List and distribution of some Terebrantia of Bombay State, PATEL, N. G. & G. A. J. Bombay nat. Hist. Soc. **51**: 597–607.

List of Thysanoptera of Czechoslovakia, PELIKÁN 1952 Zool. ent. Listy **1**: 185–195.

Adelothrips palmarum, graminicola p. 157, *formosus* p. 158, *umbricola* p. 159 **spp. n.** Brazil, HOOD Proc. biol. Soc. Wash. **65** 1952.

Adelphothrips **gen. n.** for *Gynaikothrips tristis* Karny (type) p. 374; *vernoniae* **sp. n.** Java p. 376, PRIESNER Treubia **22.**

Aeolothrips brevicornis Bagn. (=*africanus* Moult., *b.* var. *fuscus* M.) p. 362; *carpobrotus* **sp. n.** Cape Province p. 368 figs., HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.—*A. luteolus* **sp. n.** Japan p. 578 fig., KUROSAWA Zool. Mag., Tokyo **51** 1939.

Agnostochthona curvidens see *Pharetrothrips.*

Aliothrips **gen. n.** (nr. *Liothrips*) p. 377, *elegantulus* (type) p. 378, *eugeniinus* p. 379 **spp. n.** Java, PRIESNER Treubia **22.**

Alocothrips **gen. n.** for *Trichothrips hadrocerus* Karny p. 195, PRIESNER Indian J. Ent. **13** 1952.

Amphibolothrips diagnostic characters; (*Verrucothrips* **subgen. n.**) *caenosa* **sp. n.** Victoria, Australia p. 128; (*Stephanothrips* Try., *Bradythrips* Hood, *Trachythrips* Hood, *Octurothrips* Priesn., *Conocephalothrips* Bianchi, *Baenothrips* Crawf. reduced to subgenn. p. 127) figs., STANNARD Proc. biol. Soc. Wash. **65** 1952.

Anactinothrips silvicola **sp. n.** Brazil p. 167, HOOD Proc. biol. Soc. Wash. **65** 1952.

Anaphothrips (*Chaetanaphothrips*) *ramakrishnai* further description p. 197 figs., ANANTHAKRISHNAN Indian J. Ent. **14.**

Arcyothrips brasilianus **sp. n.** Brazil p. 155, HOOD Proc. biol. Soc. Wash. **65** 1952.

Audiothrips see *Erythrothrips.*

Aulacothrips **gen. n.** (Heterothripidae), *dictyotus* **sp. n.** Brazil p. 142, HOOD Proc. biol. Soc. Wash. **65** 1952.

Baenothrips reduced to subgen. of *Amphibolothrips*, q.v.

Blepharidothrips **gen. n.** (nr. *Hoplothrips*), *sphaerops* **sp. n.** Brazil p. 149, HOOD Proc. biol. Soc. Wash. **65** 1952.

Bradythrips reduced to subgen. of *Amphibolothrips* q.v.

Chaetokarnyia **gen. n.** for *Cryptothrips tenuicornis* Karny p. 200, PRIESNER Indian J. Ent. **13** 1952.

Chirothrips key to African and Cyprian spp. p. 108; *pretorianus* **sp. n.** Transvaal p. 110; *frontalis* Will. (=*sulcatus* John)♂ p. 117 figs., HOOD Rev. Zool. Bot. afr. **47.**—*C. nigriceps* **sp. n.** Brazil p. 147, HOOD Proc. biol. Soc. Wash. **65** 1952.

Conocephalothrips reduced to subgen. of *Amphibolothrips*, q.v.

Cryptothrips intorquens, persimilis see *Eugynothrips*; *fuscipennis* see *Zelotothrips*; *fuscicauda* see *Pseudocryptothrips*; *circinans* see *Teuchothrips*; *tenuicornis* see *Chaetokarnyia.*

Ctenidothrips **gen. n.** (Thripidae) p. 185, *bambusae* **sp. n.** S. India p. 186 fig., PRIESNER Indian J. Ent. **13** 1952.

Cyphothrips **gen. n.** (nr. *Actinothrips*), *dorsalis* **sp. n.** Brazil p. 172, HOOD Proc. biol. Soc. Wash. **65** 1952.

Dexiothrips **gen. n.** (nr. *Malacothrips*) p. 452, *pensus* **sp. n.** Transvaal p. 454 figs., HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.

Diceratothrips cornutus **sp. n.** Brazil p. 156, HOOD Proc. biol. Soc. Wash. **65** 1952.

Diplacothrips piceus **sp. n.** Brazil p. 161, HOOD t.c.

Docessissophothrips magnificus **sp. n.** Samoa p. 106 figs., BIANCHI Proc. Hawaii. ent. Soc. **15.**

Dolerothrips coarctatus, decipiens, seticornis, tubifex see *Eugynothrips.*

Dolichothrips assimilis **sp. n.** S. India p. 405 figs., PRIESNER & SESHADRI Indian J. agric. Sci. **22.**

Eothrips foliiperda see *Tetradothrips*; *hyalopterus* see *Prosantothrips.*

Erythrothrips Moult. (=*Audiothrips* M.); *perplexus* further description p. 371 figs., HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.—*E. brasiliensis* **sp. n.** Brazil p. 141, HOOD Proc. biol. Soc. Wash. **65** 1952.

Eugynothrips redescription p. 357; *brevisetis* Pr., *convolens* Karny from *Gynaikothrips*; *coarctatus* Karny, *decipiens* K., *seticornis* K., *tubifex* K. from *Dolerothrips*; *intorquens* K., *persimilis* K. from *Cryptothrips*; key to Oriental spp. p. 358; *umbricornis* p. 362, *manubrialis* p. 363, *sumatranus* p. 366, *adulator* p. 367 Sumatra, *susicola* p. 364 **spp. n.**; *intorquens* **var. n.** *smilacinus* (also Sumatra, Formosa) p. 365 Java, PRIESNER Treubia **22.**

Eurythrips virginianus **sp. n.** Virginia p. 77 figs., HOOD Proc. biol. Soc. Wash. **65** 1952.—See *Malacothrips.*

Formicothrips see *Leptogastrothrips.*

Frankliniella musaeperda **sp. n.** Dominican Republic, Haiti p. 137 figs., HOOD Proc. biol. Soc. Wash. **65** 1952.

Franklinothrips Back (=*Mitothrips* Tryb., *Spathiothrips* Richt.) p. 380; *megalops* T. (=*bischoffi* R.) p. 381 figs., HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.

Gastrothrips Hood (=*Probolothrips* Moult.); *abditus* Hood (=*P. hambletoni* M., *Hoplothrips brasiliensis* M.) p. 163 (note); *firmus* p. 162, *fumipennis* p. 163 **spp. n.** Brazil, HOOD Proc. biol. Soc. Wash. **65** 1952.

Gigantothrips ochroscelis **sp. n.** S. India p. 192 figs., PRIESNER Indian J. Ent. **13** 1952.

Gynaikothrips butcharti **sp. n.** Samoa p. 101 figs., BIANCHI Proc. Hawaii. ent. Soc. **15**.—*G. atavus* see *Thlibothrips*; *tristis* see *Adelphothrips*; *convolens*, *brevisetis* see *Eugynothrips*.

Halmathrips characters p. 1, key p. 2; (*H.*) *tricinctus* p. 4, (*H.*) *debilis*, (*Phaosothrips* **subgen. n.**) *beckeri* p. 5 **spp. n.** Honduras figs., STANNARD Proc. ent. Soc. Wash. **55**.

Haplothrips flavitibia ♂ p. 200 fig., ANANTHAKRISHNAN Indian J. Ent. **14**.

Hoplandrothrips fusciflavus p. 151, *albipes* p. 152, *variegatus* p. 153, *ommatus* p. 154 **spp. n.** Brazil, HOOD Proc. biol. Soc. Wash. **65** 1952.

Hoplothrips spissicornis p. 148, *procerus*, *amplus* p. 160, *aspericauda* p. 161 **spp. n.** Brazil, HOOD t.c.—*H. dignus* **sp. n.** Samoa p. 99 figs., BIANCHI Proc. Hawaii. ent. Soc. **15**.—*H. brasiliensis* see *Gastrothrips abditus*.

Hyidiothrips tesselatus **sp. n.** Brazil p. 174, HOOD Proc. biol. Soc. Wash. **65** 1952.

Hypothrips onustus **sp. n.** S. Africa p. 422 figs., HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.

Indusiothrips **gen. n.** (Thripidae), *seshadrii* **sp. n.** S. India p. 183 figs., PRIESNER Indian J. Ent. **13** 1952.—*I. seshadrii* further description p. 411, PRIESNER & SESHADRI Indian J. agric. Sci. **22**.

Leeuwenia maculans **sp. n.** S. India p. 406 figs., PRIESNER & SESHADRI t.c.—*L. spinosus* Moulton (=*fijiensis* M.) p. 105 figs., BIANCHI Proc. Hawaii. ent. Soc. **15**.

Leptogastrothrips Tryb. (=*Oedaleothrips* Hood, *Formicothrips* Priesn., *Myrmecothrips* Watson) p. 425; list of new comb.; *reuteri* T. (=*recticeps* H., *aemulus* J.-G.) p. 427; *amabilis* J.-G. a subsp. of *reuteri* p. 429; key to known spp. p. 437 figs., HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.

Leucothrips pictus **sp. n.** Brazil p. 144, HOOD Proc. biol. Soc. Wash. **65** 1952.

Liothrips tibialis **sp. n.** S. India p. 194 figs., PRIESNER Indian J. Ent. **13** 1952.

Malacothrips Hinds (=*Eurythrips* H., *Zuluiella* J.-G.) p. 447; *pretoriensis* **sp. n.** Pretoria p. 457 figs., HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.—*M. fasciatus* p. 150, *mediater* p. 151 **spp. n.** Brazil; *zonatus* Hinds (=*Eurythrips flavacinctus* M. & A.) p. 150 (note), HOOD Proc. biol. Soc. Wash. **65** 1952.

Manothrips **gen. n.** (nr. *Liothrips*), *fortis* **sp. n.** Sumatra p. 373, PRIESNER Treubia **22**.

Melanthrips setariae **sp. n.** S. Africa p. 374 figs., HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.

Mesicothrips **gen. n.** (Phlaeothripidae) p. 190, *plicans* **sp. n.** S. India p. 191 figs., PRIESNER Indian J. Ent. **13** 1952.—*M. plicans* further description p. 410, PRIESNER & SESHADRI Indian J. agric. Sci. **22**.

Mesothrips longus see *Teuchothrips*.

Mitothrips see *Franklinothrips*.

Myrmecothrips see *Leptogastrothrips*.

Neurothrips frontalis **sp. n.** Brazil p. 155, HOOD Proc. biol. Soc. Wash. **65** 1952.

Octurothrips reduced to subgen. of *Amphibolothrips*, q.v.

Oedaleothrips brasiliensis **sp. n.** Brazil p. 166, HOOD Proc. biol. Soc. Wash. **65** 1952.—See *Leptogastrothrips*.

Orthothrips leptura **sp. n.** Brazil p. 151, HOOD Proc. biol. Soc. Wash. **65** 1952.

Palinothrips **gen. n.** (nr. *Ophthalmothrips*), *palustris* **sp. n.** Brasil p. 168, HOOD t.c.

Phaosothrips **subgen. n.** (type *beckeri* sp. n.) see *Halmathrips*.

Pharetrothrips **gen. n.** for *Agnostochthona curvidens* Karny p. 195, PRIESNER Indian J. Ent. **13** 1952.

Pnigmothrips **gen. n.** (nr. *Liothrips*), *medanensis* **sp. n.** Sumatra p. 369, PRIESNER Treubia **22.**

Podothrips paraensis **sp. n.** Brazil p. 147, HOOD Proc. biol. Soc. Wash. **65** 1952.

Praepodothrips **gen. n.** p. 407 (nr. *Podothrips*), *indicus* **sp. n.** S. India p. 408 figs., PRIESNER & SESHADRI Indian J. agric. Sci. **22.**

Probolothrips see *Gastrothrips*.

Prosantothrips **gen. n.** for *Eothrips hyalopterus* Karny p. 199, PRIESNER Indian J. Ent. **13** 1952.

Pseudocryptothrips fuscicauda Tryb. (=*proximus* Faure) from *Cryptothrips* p. 417, HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.

Pseudodendrothrips alboniger p. 145, *fulvus* p. 146 **spp. n.** Brazil, HOOD Proc. biol. Soc. Wash. **65** 1952.

Pygothrips longiceps, *callipygus* p. 164, *fasciolatus* p. 165, *quadraticeps* p. 166 **spp. n.** Brazil, HOOD t.c.

Sauridothrips **gen. n.** (nr. *Liothrips*), *phlaeothripinus* **sp. n.** Indo-China p. 371, PRIESNER Treubia **22.**

Saurothrips **gen. n.** (nr. *Zeuglothrips*), *assai* **sp. n.** Brazil p. 171, HOOD Proc. biol. Soc. Wash. **65** 1952.

Scelothrips **gen. n.** (Phlaeothripidae), *menoni* **sp. n.** S. India p. 188 figs., PRIESNER Indian J. Ent. **13** 1952.—*S. menoni* further description p. 410, PRIESNER & SESHADRI Indian J. agric. Sci. **22.**

Sericothrips sativus p. 384, *mundus* p. 387, *abditus* p. 390, *rutilus* p. 393, *spadix* p. 398 **spp. n.** S. Africa; key to known ♂ & ♀ p. 402 figs., HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.—*S. epipactis* **sp. n.** Manchuria p. 548 fig., KUROSAWA Zool. Mag., Tokyo **53** 1941.—*S. hemileucus* **sp. n.** Brazil p. 144, HOOD Proc. biol. Soc. Wash. **65** 1952.

Smicrothrips **gen. n.** (nr. *Preeriella*), *particula* **sp. n.** Brazil p. 173, HOOD t.c.

Spathiothrips see *Franklinothrips*.

Stephanothrips buffai Tryb. (=*graminis* Faure), redescription p. 411, HARTWIG Ent. Mem. Dep. Agric. S. Afr. **2** 1952.—Reduced to subgen. of *Amphibolothrips*, q. v.

Sumatrothrips **gen. n.** (Phlaeothripidae) p. 196, *filiceps* **sp. n.** Sumatra p. 197, PRIESNER Indian J. Ent. **13** 1952.

Symphyothrips caliginosus **sp. n.** Brazil p. 163, HOOD Proc. biol. Soc. Wash. **65** 1952.

Teeniothrips longicaudatus **sp. n.** Samoa p. 94 figs., BIANCHI Proc. Hawaii. ent. Soc. **15.**

Tetradothrips **gen. n.** for *Eothrips foliiperda* Karny p. 198, PRIESNER Indian J. Ent. **13** 1952.

Teuchothrips longis Schmutz from *Mesothrips*; *circinans* Karny from *Cryptothrips* p. 358, PRIESNER Treubia **22.**

Thilakothrips fimbriata **sp. n.** S. India p. 33 figs., ANANTHAKRISHNAN Proc. R. ent. Soc. Lond. (B) **22.**

Thlibothrips **gen. n.** for *Gynaikothrips atavus* Karny p. 199, PRIESNER Indian J. Ent. **13** 1952.

Thrips revision of Italian spp. pp. 1–67 figs., MELIS Redia **37** 1952.—*T.* (*Oxyrrhinothrips*) *beharensis* ♂ p. 199 fig., ANANTHAKRISHNAN Indian J. Ent. **14.**—*T.* (*Isothrips*) *modicus* **sp. n.** Samoa p. 96 figs., BIANCHI Proc. Hawaii. ent. Soc. **15.**—*T. taraxaci* **sp. n.** Uzbekistan p. 904 figs., YAKHONTOV & STOVICHEK Zool. Zhurn. **32.**—*T. alectorolophi* **sp. n.** Centr. Germany p. 164 figs., VON OETTINGEN Beitr. Ent. **3.**—*T. roepkei* **sp. n.** Holland p. 169, DOEKSEN Tijdschr. PlZiekt. **59.**—*T. tabaci* all stages morphology pp. 577–593 figs., LANGE & RAZVYAZKINA Zool. Zhurn. **32.**

Trachythrips watsoni larva p. 216 figs., STANNARD Trans. Ill. Acad. Sci. **44** 1952.—Reduced to subgen. of *Amphibolothrips*, q.v.

Trichinothrips callipechys p. 147, *sensilis* p. 148 **spp. n.** Brazil, HOOD Proc. biol. Soc. Wash. **65** 1952.—*T. breviceps* re-description, ♀ p. 28, early stages p. 34 figs., SESHADRI Indian J. agric. Sci. **23.**

Trichothrips hadrocerus see *Alocothrips*.

Uzelothrips **gen. n.** (Uzelothripidae **fam. n.**), *scabrosus* **sp. n.** Brazil p. 143, HOOD Proc. biol. Soc. Wash. **65** 1952.

Verrucothrips **subgen. n.** (type *caenosa* sp. n.) see *Amphibolothrips*.

Zelotothrips **gen. n.** for *Cryptothrips fuscipennis* Karny p. 200, PRIESNER Indian J. Ent. **13** 1952.

Zeugmatothrips niger p. 168, *femoralis*, *mumbaca* p. 169, *cinctus* p. 170, *gracilis* p. 171 **spp. n.** Brazil, HOOD Proc. biol. Soc. Wash. **65** 1952.

Zuluiella see *Malacothrips*.

ANOPLURA.

Key to the families of Anoplura, FERRIS Microentomology **18** : 53, figs.

Contribution to the knowledge of Anoplura IV, WERNECK Rev. brasil. Biol. **13** : 53–64, 18 figs.

Haemodipsus lyriocephalus early stages p. 933 figs., PIECHOCKI Wiss. Z. Univ. Halle **2.**

Hoplopleura oenomydis egg, nymph, adult p. 497 figs., PRATT & KARP J. Parasit. **39.**—*H. cricetuli* figured; *hesperomydis* Osb. (=*reithrodontomydis* Ferr.) p. 52, FERRIS Microentomology **18.**

Linognathus petasmatus Ferr. figured p. 52, FERRIS t.c.

Neohaematopinus longa see *Polyplax*.

Pediculus (*P.*) *assimilis* Fahrenh., (*Parapediculus*) *atelophilus* Ewing, (*Para-*) *friedenthali* Fahrenh. distinct spp. pp. 61–76 figs., WEIDNER Mitt. hamburg. zool. Mus. **52.**

Polyplax key to Ethiopian spp. p. 199; *rose-innesi* (on *Gerbillus paeba*) p. 201, *hopkinsi* (on *Desmodillus auricularis*) **spp. n.** S.W. Africa; *subtaterae* Bedf. distinct sp. not syn. of *taterae* Ferr.; *taterae* Ferr. (=*t. mombassae* Wern.); *praomydis* Bedf. distinct sp. not syn. of *spinulosa* Burm. p. 203; *cummingsi* Ferr. distinct sp. not syn. of *otomydis* Cumm. p. 204 figs., PATERSON & THOMPSON Parasitology **43.**—*P. reclinata* p. 53, *taterae* p. 58 scope; *biseriata* ♂ copulatory apparatus p. 57; *subtaterae* a subsp. or var. not syn. of *t.* p. 59; *praomydis* Bedf. not syn. of *spinulosa* Burm. p. 60; *grammomydis* **sp. n.** (on *Grammomys dolichurus*) Cape Province p. 62 figs., WERNECK Rev. brasil. Biol. **13.**—*P. spinulosa* egg, nymph, adult p. 496 figs., PRATT & KARP J. Parasit. **39.**—*P. longa* Wern. from *Neohaematopinus*, ♂ p. 52 figs., FERRIS Microentomology **18.**

Solenopotes capillatus **subsp. n.** *dubius* (on *Bos taurus*) Poland p. 154 figs., GERWEL Bull. Soc. Amis Sci. Poznań (B) **12.**

MALLOPHAGA.

Systematic notes on the Piaget collection, V, CLAY Ann. Mag. nat. Hist. (12) **6** : 641–657.

Mallophaga collected by Alexander Koenig, I, EICHLER Bonn. zool. Beitr. **4** : 333–343, 9 figs.

Additions and corrections to check list of Mallophaga, HOPKINS & CLAY Ann. Mag. nat. Hist. (12) **6** : 434–448.

Some Mallophaga from Mozambique and S. Africa, VON KÉLER Moçambique no. 72 : 13–62, 25 figs.

Mallophaga of Bulgaria, TULESHKOV Bull. Inst. zool. Acad. bulg. Sci. **2** : 75–161, 27 figs.

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France p. 173, EICHLER Vogelwarte **16.**—*A. maurus* Nitzsch (=*sulcatus* Piag.) (type host *Chlidonias nigra*) p. 645, CLAY Ann. Mag. nat. Hist. (12) **6.**—*A. mexicanus* **sp. n.** (on *Himantopus mexicanus*) Arizona p. 134 figs., EMERSON J. Kans. ent. Soc. **26.**

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Brüelia alexandrii **sp. n.** (on *Petronia petronia barbara*) Tunis p. 338 fig., EICHLER Bonn. zool. Beitr. **4.**

Carduiceps lapponicus **sp. n.** (on *Limosa lapponica lapponica*) Germany p. 209 figs., EMERSON Proc. ent. Soc. Wash. **55.**

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Ciconiphilus decimfasciatus Bois. & Lacord. (=*Colpocephalum importunum* Denny) p. 641, CLAY Ann. Mag. nat. Hist. (12) **6.**

Cirrophthirius **gen. n.** for *Quadraceps recurvirostrae* L. (type), *Q. testudinarius* Child. p. 330 figs., TIMMERMANN Bombus no. 78–79.

Cistellatrix **gen. n.** for *Quadraceps decipiens* Denny p. 331 figs., TIMMERMANN t.c.

Clayia diasi **sp. n.** (on *Guttera lividicollis*) Mozambique p. 26 figs., VON KÉLER Moçambique no. 72.

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Dicteisia tristis Gieb. (=*Colpocephalum pilosum* Piag.) p. 649, CLAY Ann. Mag. nat. Hist. (12) **6.**

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Thompsonia [?**gen. n.**] for *annuliventris* Uch. p. 109 fig., UCHIDA Iconographia insectorum japonicorum [in Japanese].

Werneckiella equi **subsp. n.** *asini* (on *Equus asinus*) no locality p. 445 fig., EICHLER Mh. VetMed. **8.**

PSOCOPTERA.

Distribution of Bulgarian Psocoptera, DRENSKI Bull. Inst. zool. Acad. bulg. Sci. **2**: 377–382.

Additions to Indiana Psocoptera, MOCKFORD Proc. Indiana Acad. Sci. **62**: 198–199.

List of and distributional and systematic notes on Swedish Psocoptera, NYHOLM Ent. Tidskr. **74**: 110–115.

Archipsocus key to Florida spp. p. 113; (*A.*) *floridanus* p. 116, (*A.*) *gurneyi* p. 120, (*A.*) *parvulus* p. 123 **spp. n.** Florida figs., MOCKFORD Florida Ent. **36.**

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ISOPTERA.

Termites from St. Helena, HARRIS Proc. R. ent. Soc. Lond. (A) **28**: 13–14.

Catalogue of Indian Isoptera, RATTAN LAL & RAM DAS MENON Cat. Ind. Ins. pt. 27: [5+] 1–94.

Apicotermes African spp. pp. 99–121 (key to soldiers p. 105); *desneuxi* p. 108, *porifex* p. 115 **spp. n.** Belg. Congo figs., EMERSON Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **17** 1952.—*A. uelensis* **sp. n.** Belg. Congo p. 60 figs., DESNEUX Ann. Mus. Congo belg. (Sér. 8°) Sci. zool. **17** 1952.

Coptotermes emersoni **sp. n.** Ceylon p. 37 figs., AHMAD Spolia zeylan. **27.**

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Kalotermes application of factor analysis to systematics pp. 76–92 figs., STROUD Syst. Zool. **2**.

Microtermes pallidiventris **sp. n.** Belg. Congo p. 261, HARRIS Rev. Zool. Bot. afr. **47**.

Nasutitermes ceylonicus imago p. 40 figs., AHMAD Spolia zeylan. **27**.

Odontotermes (*Hypotermes*) *winifredi* **sp. n.** Ceylon p. 38 figs., AHMAD t.c.

EMBIOPTERA.

Embioptera of Parc nat. Upemba, Belg. Congo, JOLIVET Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 17 : 43–48, 7 figs.

Cleomia **gen. n.**, *guareschii* **sp. n.** Sardinia p. 93 figs., STEFANI Boll. Soc. ent. ital. **83**.

Embia tyrrhenica p. 84, *nuragica* p. 89 **spp. n.** Sardinia ; *ramburi* redescription p. 90 figs., STEFANI t.c.

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Oligotoma approximans **sp. n.** W. Australia ; *gurneyi* Frogg. (=*g. agilis* Frogg., *g. hilli* Davis) p. 252 figs., DAVIS t.c.

PLECOPTERA.

Plecoptera in the Costa collection of Musée zoologique de Naples, AUBERT Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 1 ; 1–6, 9 figs.

Additions to Swedish Catalogue, X, Plecoptera, BRINCK Opusc. ent. **18** : 108–109.

Swedish Plecoptera, BRINCK 1952 Svensk Insektfauna **15** 126 pp. 76 figs.

Plecoptera of German limnological Expedition to Sunda Is., GEIJSKES 1952 Arch. Hydrobiol. Suppl. **21** : 275–297, 10 figs.

Plecoptera of Minnesota (keys p. 6), HARDEN & MICKEL 1952 Tech. Bull. Minn. agric. Exp. Sta. no. 201 : 1–84, 12 pls.

Distribution of European Plecoptera, ILLIES Arch. Hydrobiol. **48** : 35–74, 8 figs.

List of Plecoptera of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl. : 123–124, figs.

Plecoptera of Jersey, LE QUESNE 1948 Bull. Soc. jersiaise **14** : 430.

GRIPOPTERYGIDAE (LEPTOPERLIDAE).

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NEUMOURIDAE.

Madenemura **gen. n.** p. 359, *capuroni* **sp. n.** Madagascar p. 362 figs., PAULIAN Mém. Inst. sci. Madagascar (A) **3** 1949.

Nemoura (*Protonemura*) *costai* **sp. n.** Italy p. 2 figs., AUBERT Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 1.—*N.* (*Protonemura*) *macrura* p. 12, (*P.*) *consiglioi* p. 15, (*N.*) *palliventris* p. 17, (*N.*) *silana* p. 18 **spp. n.** Italy figs., AUBERT op. cit. **5** no. 2.—*N.* (*N.*) *navasi* **sp. n.** Spain, Sicily p. 72, AUBERT Mitt. schweiz. ent. Ges. **26**.—*N. rotunda* nymph p. 18 figs., HARDEN & MICKEL Tech. Bull. Minn. agric. Exp. Sta. no. 201 1952.—*N.* (*Nemura*) (*Protonemura*) *jacobsoni* Klap. (=*atrissima* Šámal) p. 277 ; (*Amphinemura*) *thienemanni* **sp. n.** Java p. 286 fig., GEIJSKES Arch. Hydrobiol. Suppl. **21** 1952.

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Leuctra costai **sp. n.** Italy p. 4 figs., AUBERT Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 1.—*L. silana* **sp. n.** Italy p. 21 figs., AUBERT op. cit. **5** no. 2.—*L. gallica* France p. 74, *sesvenna* Switzerland p. 75 **spp. n.**, AUBERT Mitt. schweiz. ent. Ges. **26.**

CAPNIIDAE.

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Isocapnia japonica **sp. n.** Japan p. 203 figs., KOHNO Philipp. J. Sci. **82.**

Nemocapnia japonica **sp. n.** Japan p. 200 figs., KOHNO t.c.

Paracapnia curvata nymph p. 26 figs., HARDEN & MICKEL Tech. Bull. Minn. agric. Exp. Sta. no. 201 1952.

TAENIOPTERYGIDAE.

Brachyptera calabrica **sp. n.** Italy p. 7 figs., AUBERT Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 2.

Rhabdiopteryx neglecta **subsp. n.** *italica* Italy p. 11 figs., AUBERT t.c.

PERLODIDAE.

Isogenoides dorata (further description p. 77), *hansoni* identities discussed pp. 76–81 figs., HANSON Bull. Brooklyn ent. Soc. **48.**

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Chloroperla tripunctata **subsp. n.** *italica* p. 25; *torrentium* **subsp. n.** *italica* p. 26 Italy figs., AUBERT Ann. Ist. Mus. Zool. Univ. Napoli **5** no. 2.

Hastaperla orpha ♀, nymph p. 63 figs., HARDEN & MICKEL Tech. Bull. Minn. agric. Exp. Sta. no. 201 1952.

Isoptena characters differentiating from *Chloroperla* p. 87; *serricornis* characters p. 88, distribution in Europe p. 90 figs., ILLIES Ent. Tidskr. **74.**

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Acroneuria jezoensis ♀ figured p. 6, KOHNO Mushi **25.**

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Neoperla primitiva **sp. n.** Sumatra p. 292, GEIJSKES t.c.—*N. spio* nymph p. 94 fig., HYNES Proc. R. ent. Soc. Lond. (A) **28.**

EPHEMEROPTERA (PLECTOPTERA).

List of Italian Ephemeroptera, BIANCHERI Boll. Soc. ent. ital. **83**: 42–45.

Ephemeroptera of Illinois (keys p. 26), BURKS Bull. Illinois nat. Hist. Surv. **26**: 1–216, 395 figs.

Additions and corrections to Ephemeroptera in "Traité de Zoologie", DEMOULIN Bull. Ann. Soc. ent. Belg. **89**: 264–268.

Ephemeroptera of Miss Cheesman's expedition to New Caledonia, 1949, KIMMINS Ann. Mag. nat. Hist. (12) **6**: 245.

Ephemeroptera of Jersey, LE QUESNE 1948 Bull. Soc. jersiaise **14**: 429–430.

Ephemeroptera of Poland, MIKULSKI 1936 Fauna Słodkowodna polski no. 15: 1–168, 122 figs.

Ephemeroptera collected by R. Despax in S. France, VERRIER Bull. Soc. ent. Fr. **58**: 42–47.

Some Ephemeroptera of the High Tatra, ZELINKA Publ. Fac. Sci. Univ. Masaryk no. 348 : 157–167, 4 figs.

POLYMITARCIDAE.

Polyplocia campylociella Ulm. (= *crassinervis* Ulm. (♀ p. 2)) p. 4 fig., DEMOULIN Bull. Inst. Sci. nat. Belg. **29** no. 19.

POTAMANTHIDAE.

Potamanthus type discussed p. 71, EDMUNDS Bull. Brooklyn ent. Soc. **48.**

NEOEPHEMERIDAE.

Neoephemeridae **fam. n.** p. 42, BURKS Bull. Illinois nat. Hist. Surv. **26.**

Neoephemera McD. (=*Oreianthus* Trav.) p. 42 fig., BURKS Bull. Illinois nat. Hist. Surv. **26.**—*N. youngi* **sp. n.** U.S.A. p. 145 figs., BERNER Florida Ent. **36.**

Oreianthus see *Neoephemera.*

OLIGONEURIIDAE.

Chromarcyinae **subfam. n.** p. 8 figs., DEMOULIN Bull. Inst. Sci. nat. Belg. **29** no. 17.

Chromarcys wing nervation ; systematic position discussed p. 7 figs., DEMOULIN t.c.

Oligoneuriinae **subfam. n.** p. 8 figs., DEMOULIN t.c.

Pseudoligoneuria wing nervation p. 3 ; systematic position discussed p. 5 figs., DEMOULIN t.c.

ECDYONURIDAE.

Italian Ephemeroptera, XVII, Ecdyonuridae, GRANDI Boll. Ist. Ent. Univ. Bologna **19** : 307–385, 45 figs.

Ecdyonurus ruffii **sp. n.** Italy p. 335 figs., GRANDI Boll. Ist. Ent. Univ. Bologna **19.**—*E. rivulicolus* see *Stenonema vicarium.*

Heptagenia gridellii p. 348, *concii* p. 363 **spp. n.** Italy figs., GRANDI Boll. Ist. Ent. Univ. Bologna **19.**—*H. placita* see *Stenonema terminatum.*

Rhithrogena tatrica **sp. n.** High Tatra pp. 158, 166 figs., ZELINKA Publ. Fac. Sci. Univ. Masaryk no. 348.—*R. fiorii* **sp. n.** Italy p. 316 figs., GRANDI Boll. Ist. Ent. Univ. Bologna **19.**

Stenonema areion p. 163, *ares* p. 170, *metriotes* p. 174 **spp. n.** Illinois ; *vicarium* Walk. (=*Ecdyonurus rivulicolus* McD.) p. 172 ; *terminatum* Walsh (=*Heptagenia placita* Banks) p. 175 ; *integrum* McD. (=*bellum* Trav., *wabasha* Daggy) p. 176 figs., BURKS Bull. Illinois nat. Hist. Surv. **26.**

AMETROPODIDAE (METRETOPODIDAE).

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Isonychia manca Eaton not *ignota* Walk. type of gen. p. 72, EDMUNDS Bull. Brooklyn ent. Soc. **48.**—*I. sayi* **sp. n.** U.S.A. p. 110 figs., BURKS Bull. Illinois nat. Hist. Surv. **26.**

Isonychiinae **subfam. n.** p. 108, BURKS t.c.

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Habrophlebia delamarei see *Adenophlebiodes.*

Paraleptophlebia sticta **sp. n.** U.S.A. p. 92, BURKS Bull. Illinois nat. Hist. Surv. **26.**

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Ephemerella type discussed p.71, EDMUNDS Bull. Brooklyn ent. Soc. **48.**—*E. aurivillii* Bengt. (=*concinnata* Trav.) p. 69 ; *excrucians* Walsh (=*semiflava* McD.) p. 70, BURKS Bull. Illinois nat. Hist. Surv. **26.**

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BAËTIDAE.

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Centroptilum rufostrigatum McD. (=*bistrigatum* Daggy) p. 120 fig., BURKS Bull. Illinois nat. Hist. Surv. **26.**

Cloëon Leach (=*Procloëon* Bengt.) p. 141, BURKS t.c.—*C.* sp. ♀ p. 298, larva p. 300 figs., VERRIER Bull. Soc. zool. Fr. **77.**

Procloëon see *Cloëon.*

Pseudocloëon myrsum **sp. n.** Illinois p. 139, BURKS Bull. Illinois nat. Hist. Surv. **26.**

ODONATA (PARANEUROPTERA).

Additions to catalogue of Swedish Odonata, ANDER Opusc. ent. **18**: 87–88.

List of Odonata from Lake Viverone, Piedmont, CAPRA Boll. Soc. ent. ital. **83**: 20–22.

Odonata of S. Italy & Abruzzi, CONSIGLIO Mem. Soc. ent. ital. **31**: 96–108.

Odonata of flood area of the Niger, FRASER Bull. Inst. franç. Afr. noire **15**: 1523–1524.

List of Odonata of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl.: 121–122 figs.

Odonata of Miss Cheesman's expedition to New Caledonia, 1949, KIMMINS Ann. Mag. nat. Hist. (12) **6**: 242–244, 3 figs.

Dragonflies of Jersey, LE QUESNE 1946 Bull. Soc. jersiaise **14**: 213–216.

Some Odonata from Princes I., W. Java, LIEFTINCK Idea **9**: 51–56, 2 maps.

Some Odonata of the Cook Is., LIEFTINCK Proc. Hawaii. ent. Soc. **15**: 45–49.

Some dragonflies collected in southern Borneo, LIEFTINCK Treubia **22**: 381–406, 7 figs.

Larvae of dragonflies of the USSR (keys p. 64), POPOVA Opred. Faune SSSR **50**: 5–235, 141 figs.

Records of Venezuelan Odonata, RÁCENIS Opusc. ent. **18**: 180–189, 4 figs.

List of Odonata collected in the Sahara, 1947, REYMOND Bull. Soc. Sci. nat. Maroc **32**: 87–89.

Odonata of Parc du Mont Tremblant, Quebec province, ROBERT Canad. Ent. **85**: 316–339.

Contribution to Norwegian dragonflies, TJØNNELAND Univ. Bergen Årb. naturv. R. **1952** no. 15: 1–52, 2 figs. 26 maps.

Odonata of Canada and Alaska, Vol. I (Zygoptera), WALKER xi & 292 pp. 44 pls.

Additions to list of Odonata from Florida, WESTFALL Florida Ent. **36**: 165–173.

Zygoptera.

AGRIIDAE.

Agrion virgo britannica status p. 33, FRASER Ent. mon. Mag. **89.**

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Lestoidea character of Anal vein and systematic position discussed pp. 227–230 figs., FRASER Ent. mon. Mag. **89.**

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Notoneura moluccensis p. 672, *fonticola* p. 674, *plagiata* p. 676 larvae figs., LIEFTINCK Treubia **21.**

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Platycnemis foliacea imago, larva pp. 553–560 figs., ASAHINA Zool. Mag. **51** 1939.

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Anisagrion meridionale **sp. n.** Venezuela p. 181 figs., RÁCENIS Opusc. ent. **18.**

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Mortonagrion forficulatum **sp. n.** Borneo p. 392 figs., LIEFTINCK Treubia **22.**

Pacificagrion dolorosa **sp. n.** Samoa p. 119; *lachrymosa* ♂ p. 120 figs., FRASER Proc. R. ent. Soc. Lond. (B) **22.**

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Gomphus ubadshii **sp. n.** Syria, Turkey p. 6 figs. SCHMIDT Mitt. münch. ent. Ges. **43.**

Hemigomphus gouldii Selys (= *Austrogomphus comitatus* Tilly.) p. 13 figs., FRASER Coll. zool. Selys Longchamps fasc. 21.

Isomma hieroglyphicum further description p. 194 figs., FRASER Proc. R. ent. Soc. Lond. (B) **22.**

Merogomphus tamaracherriensis Fras. a sp. not subsp. of *longistigma* p. 191, FRASER t.c.

Onychogomphus aequistylus redescription p. 192 figs., FRASER t.c.—*O. ardens* morphology pp. 1–56 figs., CHAO Smithson. misc. Coll. **122** no. 6. —*O. praeruptus* see *Austroepigomphus.*

Temnogomphus a valid gen. ; *orites* Laidl. from *Anisogomphus* p. 190 figs., FRASER Proc. R. ent. Soc. Lond. (B) **22.**

PETALURIDAE.

Characters separating Petalurid nymphs, WOLFE Trans. roy. Soc. N.Z. **80** : 273.

Uropetala of New Zealand pp. 245–275, egg, nymph p. 253 figs., WOLFE t.c.

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Aeshna caerulea nymph p. 35 figs., FRASER Ent. mon. Mag. **89.**—*A.* (*Hesperaeschna*) *decessus* **sp. n.** Brazil p. 205, CALVERT Ent. News **64.**

Anax congoliath **sp. n.** Belg. Congo p. 301 figs., FRASER Rev. Zool. Bot. afr. **48.**

Boyeria maclachlani characters, larva pp. 295–301 figs., ASAHINA Zool. Mag. **51** 1939.

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Atoconeura revision pp. 42–49, characters p. 44, key p. 47 ; *eudoxia* Kby. (=*extraordinata* Fras.) p. 44 ; *biordinata* Karsch (=*leopardina* Först.) the sp. in Tanganyika (with **subspp. n.** *pseudeudoxia* Uganda, *chirinda* S. Rhodesia, *kenya* Kenya) p. 46 figs., LONGFIELD Entomologist **86.**

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Erythrodiplax chromoptera ♂ p. 248 fig., DIAS DOS SANTOS Dusenia **4.**

Hadrothemis vrijdaghi ♀ p. 251 fig., FRASER Rev. Zool. Bot. afr. **48.**

Huonia revision of spp. of Moluccas and New Guinea pp. 183–216, key p. 186 ; *daphne* p. 198, *ferentina* p. 205 Halmahera, *thisbe* Misool I. p. 200, *thais* Misool I., New Guinea p. 208 (larva p. 212) **spp. n.** figs., LIEFTINCK Treubia **22.**

Leucorrhinia dubia **var. n.** *lucasi* England p. 138, FRASER Ent. mon. Mag. **89.**—*L. dubia* egg, nymphs p. 47 figs., GARDNER Ent. Gaz. **4.**

Libella use of name p. 142, NEILL Ent. mon. Mag. **89.**

Libellula depressa early stages p. 178; final instar nymph p. 186 figs., GARDNER Ent. Gaz. **4**.

Lokia erythromelas ♂ further description p. 246, ♀ p. 247; *berenice* p. 248, *coryndoni* p. 249 **spp. n.** Belg. Congo figs., FRASER Rev. Zool. Bot. afr. **48**.

Miathyria marcella nymph p. 31 figs., BICK Proc. ent. Soc. Wash. **55**. —*M. marcella* nymph p. 24 figs., WESTFALL Florida Ent. **36**.

Nannophya pygmaea larva pp. 141–150 figs., ASAHINA Zool. Mag. **51** 1939.

Nephepeltia leonardina **sp. n.** Venezuela p. 136 fig., RÁCENIS Acta biol. venezuel. (Secc. Biol.) **1**.

Onychothemis coccinea **sp. n.** Malay Pen. p. 264, LIEFTINCK Treubia **22**.

Rhodopygia pruinosa **sp. n.** Bolivia p. 3 figs., BUCHHOLZ Bull. Inst. Sci. nat. Belg. **29** no. 10.

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Zygonyx iris **subsp. n.** *errans* Borneo p. 266, LIEFTINCK Treubia **22**.

DERMAPTERA.

Additions to catalogue of Swedish Dermaptera, ANDER Opusc. ent. **18**: 88.

Dermaptera of Parc nat. Albert, Belg. Congo, HINCKS Explor. Parc nat. Albert, Miss. de Witte (1933–35) fasc. 79: 1–8.

Value of male genitalia of Diplatyinae in systematics, HINCKS Trans. 9th int. Congr. Ent. Amsterdam 1951 **2**: 3–6, 6 figs.

List of Dermaptera of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl.: 126, figs.

Anisolabis littorea characters p. 385 figs., GILES Trans. roy. Soc. N.Z. **80**.

Forficula rehni Burr holotype designated p. 126, REHN Ent. News **64**.

Parasparatta bocainensis **sp. n.** Brazil p. 243; list of known spp. pp. 245–246 fig., MACHADO Dusenia **4**.

ORTHOPTERA.

Additions to catalogue of Swedish Orthoptera, ANDER Opusc. ent. **18**: 88.

Orthoptera of Elba I., BACCETTI 1952 Redia **37**: 333–343.

List of Orthoptera of Mt. Ishizuchi & Omogo valley, Japan, ISHIHARA MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl.: 124–126, figs.

Revised catalogue of Belgian Orthoptera, GOETGHEBUER Bull. Ann. Soc. ent. Belg. **89**: 135–145.

List of Orthoptera of Iran (contd.), MIRZAYAN 1951 Ent. Phytop. appl. no. 12–13: 29–34.

Orthoptera from the Solomon Is., WILLEMSE Bull. Inst. Sci. nat. Belg. **29** no. 7: 1–27, 17 figs.

BLATTIDAE.

Blattariae of Afghanistan, PRINCIS Vidensk. Medd. dansk naturh. Foren. Kbh. **115**: 173–176.

Allactina see *Balta*.

Balta Tepp. (=*Allactina* Heb., *Hebardula* Uv.) *jacobsoni* ♂ figured p. 55, PRINCIS Opusc. ent. **18**.—*B. scripta* all stages p. 57 figs., POPE Proc. roy. Soc. Qd **63**.

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Blattella germanica all stages p. 34 figs., POPE Proc. roy. Soc. Qd **63**.

Ectobius livens all stages p. 40 figs., GURNEY Proc. U.S. nat. Mus. **103** no. 3315.—*E. lapponicus* **ab. n.** *blairi* Britain p. 170, KEVAN Entomologist **86**.—*E. pallens* see *Symploce*.

Ellipsidion affine all stages p. 54 figs., POPE Proc. roy. Soc. Qd **63**.

Euhebardula **gen. n.** for *Blatta suffusa* Wlk. (type); *fijiana* **sp. n.** Fiji p. 56 fig., PRINCIS Opusc. ent. **18**.

Hebardula see *Balta*.

Leucophaea maderae all stages p. 45 figs., GURNEY Proc. U.S. nat. Mus. **103** no. 3315.

Loboptera indica see *Neoloboptera*.

Megamareta verticalis all stages p. 58 figs., POPE Proc. roy. Soc. Qd **63**.

Methana curvigera p. 48, *marginalis* p. 50 all stages ; *caneae* **sp. n.** Queensland p. 52 figs., POPE t.c.

Nauphoeta cinerea all stages p. 40 figs., POPE t.c.

Neoloboptera **gen. n.** for *Loboptera indica* Br. W. p. 174, PRINCIS Vidensk. Medd. dansk naturh. Foren. Kbh. **115**.

Periplaneta australasiae p. 25, *americana* p. 30, *ignota* p. 32 all stages figs., POPE Proc. roy. Soc. Qd **63**.

Salganea indica **sp. n.** India p. 53, PRINCIS Opusc. ent. **18**.

Supella supellectilium all stages p. 38 figs., POPE Proc. roy. Soc. Qd **63**.

Symploce pallens Steph. from *Ectobius* p. 170 fig., KEVAN Entomologist **86**.

MANTIDAE.

Mantids of Afghanistan, BEIER Vidensk. Medd. dansk naturh. Foren. Kbh. **115** : 169–172.

Preliminary list of Mantodea of Trinidad, KEVAN Ann. Mag. nat. Hist. (12) **6** : 809–816.

Antistia parva **sp. n.** S.W. Africa p. 257 figs., BEIER Ann. Transv. Mus. **22**.

Bolbella in Amelini p. 263 ; revision of S. African spp. pp. 263–266 (key p. 263) ; *brevis* **sp. n.** Transvaal p. 265 figs., BEIER t.c.

Catasigerpes tridens Sauss., *subcornuta* Westw. good spp. p. 261 figs., BEIER t.c.

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Tarachina transvaalensis **sp. n.** Transvaal p. 256 figs., BEIER t.c.

GRYLLACRIDAE.

Gryllacrididae of Bahama Is., especially Bimini, STROHECKER Amer. Mus. Novit. no. 1618 : 2.

Anancistrogera dubia **sp. n.** Solomon Is. p. 24 figs., WILLEMSE Bull. Inst. Sci. nat. Belg. **29** no. 7.

Niphetogryllacris aberrans **sp. n.** Solomon Is. p. 23 figs., WILLEMSE t.c.

Parudenus falklandicus ♂ allotype p. 284, PIRÁN Acta zool. lilloana **10** 1952.

Solomogryllacris **gen. n.** p. 21, *simplex* **sp. n.** Solomon Is. p. 23 figs., WILLEMSE Bull. Inst. Sci. nat. Belg. **29** no. 7.

GRYLLIDAE.

Gryllidae of Bahama Is., especially Bimini, STROHECKER Amer. Mus. Novit. no. 1618 : 3–11, 2 figs.

Calyptotrypus hibinonis Mats. (from *Madasumma*) further description p. 561 figs., FURUKAWA Zool. Mag., Tokyo **51** 1939.

Cycloptilum barbicorne **sp. n.** N. Bimini, Bahama Is. p. 6 figs., STROHECKER Amer. Mus. Novit. no. 1618.

Gryllus bimaculatus pigmentation pp. 436–440 figs., BRAESCH Vie et Milieu **3** 1952.—*G. scaber* F. redescription p. 486, KEVAN Ent. Medd. **26**.—*G. scaber* a syn. of *Chrotogonus oxypterus* (Acrididae), q. v.

Hapithus nodulosus **sp. n.** S. Bimini, Bahama Is. p. 8 figs., STROHECKER Amer. Mus. Novit. no. 1618.

Madasumma hibinonis see *Calyptotrypus*.

Nemobius sylvestris author Bosc (1792) not F. (1793) p. 295, GABBUTT Ent. mon. Mag. **89**.

Phalangopsis carvalhoi **sp. n.** Amazonas p. 168, DA COSTA LIMA & DA COSTA LEITE An. Acad. bras. Ciênc. **25**.

TETTIGONIIDAE.

List of Tettigoniidae of Mt. Golija, S.W. Serbia, STEVANOVIT' Trav. Acad. serbe Sci. **31** Inst. Ecol. Biogeogr. no. 4 : 54–55.

Barbitistes constrictus all stages p. 72 figs., HABER Roczn. Nauk lesń. **1**.

Conocephalus bodenheimeri **sp. n.** Israel p. 261 figs., STERNLICHT Bull. Res. Counc. Israel **3**.

Daedalus waehnerorum **sp. n.** Brazil p. 492 figs., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Euanerota spinifera **sp. n.** Solomon Is. p. 7 figs., WILLEMSE Bull. Inst. Sci. nat. Belg. **29** no. 7.

Microcentrum minus **sp. n.** Texas p. 684 fig., STROHECKER Amer. Midl. Nat. **48** 1952.

Nicsara solomona **sp. n.** Solomon Is. p. 19 figs., WILLEMSE Bull. Inst. Sci. nat. Belg. **29** no. 7.

Phrictaetypus flavo-ornatus **sp. n.** Solomon Is. p. 14, WILLEMSE t.c.

Phyllophorella dorsalis **sp. n.** Solomon Is. p. 11 fig., WILLEMSE t.c.

Poecilimon celebi p. 177, *tuncayi* p. 178, *rammeanus* p. 179, *bilgeri* p. 181, *davisi* p. 183 **spp. n.** Turkey figs., KARABAG Eos **29**.

Pseudorhynchus robustus **sp. n.** Solomon Is. p. 16 figs., WILLEMSE Bull. Inst. Sci. nat. Belg. **29** no. 7.

Psyra solomonensis p. 3, *ponceleti* p. 5 **spp. n.** Solomon Is. figs., WILLEMSE t.c.

Tettigonia verrucivora **abb. n.** *ocreothoracica, reitteri, brunneocapitata* Silesia p. 23, GÖRTLER Acta Mus. Siles. (A) **1** 1951.

TETRIGIDAE.

Revision of Acrydiinae III, sectio Amorphopi, GÜNTHER 1939 Abh. Mus. Tierk. Völkerk. Dresden **20** (A) Zool. (N.F.) Bd. I : 16–335, 250 figs.

Annotated list of Tetrigidae of Nebraska, HAUKE Bull. Univ. Neb. St. Mus. **3** no. 9 : 3–6.

Acridium vittatum, ochraceum, scriptum, variegatum, kiefferi see *Tetrix undulata*.

Acrydium bifasciatum see *Tetrix undulata*.

Afrocriotettix Gthr. a good genus and not syn. of *Tefrinda* p. 315, GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Allotettix otumboides **sp. n.** Peru, Bolivia, Ecuador p. 259 figs., GÜNTHER t.c.

Amorphopus simplex see *Pterotettix andréi*.

Amphinotulus **gen. n.** p. 135, *overbecki* **sp. n.** Java (type) p. 136 ; *cheesmanae* Gthr. from *Apterotettix* ; *truncatus* Bol. from *Mazarredia* p. 137 figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Amphinotus Hanc. (=*Isandrus* Rehn) p. 126 ; *overbecki* Java p. 132, *schoutedeni* Belg. Congo p. 133 **spp. n.** figs., GÜNTHER t.c.

Ankistropleuron (?) *longispinis* **sp. n.** Madagascar p. 192 figs., GÜNTHER t.c.

Apterotettix cheesmanae see *Amphinotulus*.

Astyalus tessmanni Gthr. (=*strumiger* Rehn) p. 303, GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Barytettix **gen. n.** for *Prototettix africanus* Hanc. (type) p. 316 ; *apterus, cadone* **spp. n.** Congo p. 318 figs., GÜNTHER t.c. [Cf. Z.R. **85** 1948 p. 341.]

Bolivaritettix **gen. n.** for *Mazarredia sculpta* Bol. (type) (=*M. indotata* B. p. 59), *M. remissa* B., *M. convergens* Br., *M. lativertex* Br., *M. sikkimensis* Bol., *M. chinensis* Hanc., *M. javanica* B., *M. asperula* B., *M. insignis* Kirby, *M. nilghirica* Heb., *M. laticeps* B., *M. ghumtiana* Hanc., *M. aptera* Rehn (=*Hyboella siebersi* Gthr. p. 79), *M. platynotus* Gthr. p. 57 ; *difficilis* Java p. 68, *palawanicus* p. 80, *paraguensis* p. 82 N. Palawan, *amphinotoides* Siargao I. p. 80, *humeralis* S. China p. 84 **spp. n.** figs., GÜNTHER t.c.

Centrosotettix **gen. n.** for *Mazarredia centrosa* Bol. p. 45 figs., GÜNTHER t.c.

Chiriquia compressa p. 230, *spinata* p. 232 **spp. n.** Ecuador figs., GÜNTHER t.c.

Cingalotettix **gen. n.** for *Eurymorphopus latilobus* Hanc. p. 144, GÜNTHER t.c.

Cladoramus crenulatus Hanc. (= *squalus* Bol.) p. 303, GÜNTHER t.c.

Corystotettix **gen. n.** p. 274, *javanicus* **sp. n.** Java p. 275 figs., GÜNTHER t.c.

Crimisus Bol. (= *Sclerotettix* Bruner) p. 238; *costaricensis* Costa Rica p. 243, *acutus* Ecuador p. 244, *modicus* Bolivia p. 248 **spp. n.** figs., GÜNTHER t.c.

Cryptotettix impennis p. 196, *lathraeospanicus* p. 198 **spp. n.** Madagascar figs., GÜNTHER t.c.

Dasyleurotettix infaustus Wlk. (= *Tettix alienus* W., *T. impressus* Stål, *Prototettix umbripennis* Karsch) p. 309, GÜNTHER t.c.

Dinotettix major Bol. (= *elegans* B.) p. 201; *conradti* **sp. n.** Cameroons p. 202 figs., GÜNTHER t.c.

Epitadas see *Oxytettix*.

Epitettix dammermani E. Java p. 305, *elytratus* E. Himalayas p. 306, *tamilus* S. India p. 307 **spp. n.** figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Eucriotettix dyscheres **sp. n.** Tonkin p. 322, GÜNTHER t.c.

Eurymorphopus godeffroyi **sp. n.** Fiji p. 42 figs., GÜNTHER t.c.—*E. latilobus* see *Cingalotettix*.

Hebarditettix quadricarinatus see *Macromotettix*.

Hyboella overbecki (also Sumatra) p. 211, *similis* p. 217 Java, *heinrichi* Burma p. 212, *perakensis* Malaya p. 218 **spp. n.** figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.—*H. siebersi* see *Bolivaritettix aptera*; *leveri* see *Salomonotettix*.

Hydrotettix javanensis **sp. n.** Java p. 140 figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Ibeotettix angulatus Bol. (= *batesi* Rehn) p. 205, GÜNTHER t.c.

Isandrus see *Amphinotus*.

Lamellitettigodes **gen. n.** for *Tetrix contractus* Bol. p. 123 figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Macromotettix **gen. n.** for *Hebarditettix quadricarinatus* Bol. (type), *Mazarredia sokutsuense* Karny p. 154; *tonkinensis* **sp. n.** Tonkin p. 155 figs., GÜNTHER t.c.

Mazarredia annamensis **sp. n.** Annam p. 50; (*Prosoaltus* reduced to subgen. p. 49) *cephalica* de Haan (= *occulatus* Hanc.) p. 51 figs., GÜNTHER t.c.—*M. sculpta* (*indotata*), *remissa*, *convergens*, *lativertex*, *sikkimensis*, *chinensis*, *javanica*, *asperula*, *insignis*, *nilghirica*, *laticeps*, *ghumtiana*, *aptera*, *platynotus* see *Bolivaritettix*; *gibbosus*, *bürgersi*, *schlaginhaufeni*, *rammei*, *reductus* see *Melainotettix*; *centrosa* see *Centrosotettix*; *fuscipes*, *atypa*, *lauta* see *Metamazarredia*; *kankauense* see *Xistrellula*; *perplexus*, *montistafae* see *Synalibas*; *semperi* see *Probolotettix*; *truncatus* see *Amphinotulus*; *sokutsuense* see *Macromotettix*.

Melainotettix **gen. n.** for *Mazarredia gibbosus* Bol. (type), *M. bürgersi* Gthr., *M. schlaginhaufeni* Gthr., *M. rammei* Gthr., *M. reductus* Gthr. p. 85, GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Metamazarredia **gen. n.** for *Mazarredia fuscipes* Stål (type), *M. lauta* Bol., *M. atypa* Bol. p. 53; *borneensis* **sp. n.** Borneo p. 56 figs., GÜNTHER t.c.

Metopomystrum **gen. n.** p. 270, *pehlkei* Colombia (type) p. 271, *apterum* Brazil p. 272 **spp. n.** figs., GÜNTHER t.c.

Metrodora Bol. (= *Platytettix* Hanc., *Tylotettix* Morse) p. 292; *acuta* Ecuador p. 294, *colombiae* Colombia p. 299 **spp. n.** figs., GÜNTHER t.c.

Miriatra chalazombra Brazil p. 268, *boliviana* Bolivia p. 269 **spp. n.** figs., GÜNTHER t.c.

Mitrariella Heb. validity discussed p. 288, GÜNTHER t.c.

Mitrariella Will. see *Rostella*.

Morphopoïdes madagascariensis, Madagascar p. 178, *tessmanni* S. Cameroons, Togo p. 179 **spp. n.** figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Morphopus acmophylloïdes **sp. n.** Belg. Congo p. 185 fig., GÜNTHER t.c.

Oxytettix Rehn (=*Epitadas* R.) p. 194, GÜNTHER t.c.

Paraguelus **gen. n.** p. 38, *palawanicus* **sp. n.** N. Palawan p. 39 figs., GÜNTHER t.c.

Paraspartolus **gen. n.** p. 36, *curiosus* **sp. n.** N.E. Luzon p. 37 figs., GÜNTHER t.c.

Pelusca schoutedeni **sp. n.** Congo p. 223 figs., GÜNTHER t.c.

Platygavialidium sinicum **sp. n.** S.E. China p. 312; *nodiferum* Wlk. (=*uvarovi* Gthr.) p. 314 figs., GÜNTHER t.c.

Platytettix see *Metrodora*.

Probolotettix **gen. n.** p. 109, *sundaïcus* (type) Sumatra, Philippines etc. p. 110, *centrositettigoïdes* E. Borneo p. 113 **spp. n.**; *semperi* Bol. from *Mazarredia*; *angulobus* Hanc. from *Pseudoparatettix* p. 112; *languidus* Bol. from *Systolederus* p. 115 figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Procytettix thalassanax **sp. n.** Aldabra I. p. 286 figs., GÜNTHER t.c.

Prosoaltus a subgen. of *Mazarredia*, q. v.

Prototettix africanus see *Barytettix*; *umbripennis* see *Dasyleurotettix infaustus*.

Pseudomitraria conradti p. 282, *breviceps* p. 283 **spp. n.** Togo figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.—*P. breviceps* see *Thibron mombuttu*.

Pseudoparatettix systolus Sumatra p. 106, *mindoroensis* Mindoro p. 108 **spp. n.** figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.—*P. angulobus* see *Probolotettix*.

Pseudosystolederus **gen. n.** p. 174, *sikorai* **sp. n.** Madagascar p. 175 figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Pterotettix Bol. (=*Tetticerus* Hanc.) p. 186; *andréi* Bol. (=*Amorphopus simplex* Brancs.) p. 187; *humilis* p. 188, *alluaudi* p. 189 **spp. n.** Madagascar figs., GÜNTHER t.c.

Rehnitettix **gen. n.** p. 92, *olsufieffi* **sp. n.** Madagascar p. 93, GÜNTHER t.c.

Rostella Hanc. (=*Mitrariella* Will.) p. 277, GÜNTHER t.c.

Salomonotettix **gen. n.** for *Hyboella leveri* Gthr. p. 44, GÜNTHER t.c.

Scaria laeta **sp. n.** Brazil p. 472 figs., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Sclerotettix see *Crimisus*.

Spadotettix hainanensis Hainan I., *gravelyi* S. India p. 289 **spp. n.** figs., GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Synalibas **gen. n.** p. 323, *vagans* (type) **sp. n.** E. Himalaya p. 324; *perplexus* Hanc. p. 325, *montistafae* Gthr. p. 326 from *Mazarredia* figs., GÜNTHER t.c.

Systolederus gravelyi India p. 164, *siamesicus* Siam p. 166, *boettcheri* Mindanao p. 167, *waterstradti* Borneo p. 173 **spp. n.** figs., GÜNTHER t.c.—*S. languidus* see *Probolotettix*.

Tetrix bipunctata L. status in Britain discussed pp. 205–224; *kraussi* Saulcy (=*b. subaptera* Haij) a f. of *bipunctata* p. 212; key to W. European spp. allied to *b.* p. 215; *undulata* Swrb. (=*Acrydium bifasciatum* Thunb., *Acridium vittatum* Zett., *ochraceum* Z., *scriptum* Z., *variegatum* Z., *T. kiefferi* Saulcy) p. 217 figs., KEVAN Ent. Gaz. **4**.—*T. contractus* see *Lamellitettigodes*.

Tetticerus see *Pterotettix*.

Tettix alienus, impressus see *Dasyleurotettix infaustus*.

Thibron mombuttu Rehn (=*Pseudomitraria breviceps* Gthr.) p. 284, GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Thymoïtes **gen. n.** p. 224, *buruanus* **sp. n.** Buru p. 225 figs., GÜNTHER t.c. [Cf. Z.R. **85** 1948 p. 341.]

Tylotettix see *Metrodora*.

Xistrella dohrni (with **subsp. n.** *palawanica* N. Palawan p. 150) **sp. n.** Sumatra p. 149, GÜNTHER Abh. Mus. Tierk. Völkerk. Dresden **20** 1939 (A) Zool. (N.F.) Bd. I.

Xistrellula **gen. n.** for *Mazarredia kankauense* Karny p. 153 figs., GÜNTHER t.c.

ACRIDIDAE.

Comparative study of the ovipositor in Acrididae, I, II, AGARWALA Indian J. Ent. **13** 1952 : 147–181, 35 figs. ; **15** : 53–69, 20 figs.

Annotated list of Acrididae of Nebraska, HAUKE Bull. Univ. Neb. St. Mus. **3** no. 9 : 7–76.

Provisional check-list of Acridoidea of Tasmania, KEY 1952 Pap. roy. Soc. Tasm. **86** : 127–130.

Catantopinae of USSR (keys p. 66), MISHCHENKO 1952 Fn. USSR, Insects : Orthoptera **4** no. 2 : 1–610, 520 figs.

Pyrgomorphinae of Australia, REHN Grasshoppers and locusts Aust. vol. **2** : 1–270, 32 pls.

Records and descriptions of Pyrgomorphinae, REHN Trans. Amer. ent. Soc. **79** : 99–150, 5 pls.

List of Acrididae of Mt. Golija, S.W. Serbia, STEVANOVIT' Trav. Acad. serbe Sci. **31** Inst. Ecol. Biogeogr. no. 4 : 53–54.

Acrididae of Angola and N. Rhodesia, collected by Dr. M. Burr, 1927–1928, UVAROV Publ. cult. Cia Diamant. Angola no. 21 : 1–217, 295 figs.

Abracris nebulosa Brun. (=*Catantops angustulus* I. Bol.) p. 231, DIRSH & UVAROV Tijdschr. Ent. **96**.

Acrida acuminata Stål (=*a.* var. *histrionica* Sjöst.) ; *turrita* L. (=*Truxalis rufescens* P. de B., *tenuis* P. de B, *A. maxima* Karny, *turrita uvarovi* I. Bol., *t. tunetana* Dirsh, *t. sicula* Dirsh) ; *herbacea* I. Bol. (=*reducta* I. Bol.) ; *bicolor* Thnb. (=*Truxalis pellucida* Klug, *stali* I. Bol., *A. orientalis* I. Bol., *deminuta* I. Bol., *tesselata* Sjöst., *leopoldi* Sjöst., *pellucida algeriana* Dirsh, *p. palaestina* Dirsh, *p. cypria* Dirsh, *mediterranea* Dirsh, *m. lombardica* Dirsh, *m. bosphorica* Dirsh) from *Truxalis* ; *oxycephala* Pall. (=*turrita deserti* Uv., *persa* Dirsh, *turca* Dirsh, *caspica* Dirsh) ; *exaltata* Wlk. (=*Tryxalis brevicollis* I. Bol., *A. lugubris* Burr, *curta* Uv.) from *Truxalis* p. 231 ; *cinerea* Thnb. (=*Truxalis unicolor* Thnb., *chinensis* Westw., *A. lata* Mots., *csikii* I. Bol., *turrita koreana* Ikonn.) from *Truxalis* ; *conica* F. (=*T. rafflessii* Blanch., *scitula* Wlk.) from *T.* p. 232, DIRSH & UVAROV t.c. *Acridium innotabile* see *Catantops* ; *capicola* see *C. humeralis* ; *debilitatum, decoripes, saucium* see *C. axillaris* ; *adustus* see *C. spissus* ; *angustifrons* see *Stenocatantops* ; *humile* see *Xenocatantops*.

Acrophymus list of spp. p. 100, key; *cochleatus* N. Rhodesia p. 101, *ocreatus* Angola p. 102 **spp. n.** figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Acrotylus fulgens (also Belg. Congo) p. 117, *crassiceps* p. 118 Angola **spp. n.**; *furcifer* **subsp. n.** *aurantius* N. & S. Rhodesia p. 119 figs., UVAROV t.c.

Agymnastus haemopterus **sp. n.** California p. 607, STROHECKER Amer. Midl. Nat. **48** 1952.

Aiolopus annotated list of Tropica. African spp. p. 108 ; *femoralis* Nl Rhodesia p. 109, *acutus* Belg. Congo p. 111 **spp. n.** figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Allotriusia madimbana see *Madimbania*.

Amphicremna brachycera **sp. n.** Belg. Congo p. 157 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Anablepia pilosa S. Rhodesia, S. Africa p. 190, *angusta* Angola p. 192 **spp. n.** figs., UVAROV t.c.

Anacatantops **gen. n.** for *Catantops notatus* Karsch (type) (=*C. karschi* Karny, *minimus* Karny, *kraussi* Karny, *bipunctatus* I. Bol., *simplex* Uv., *frater* Ramme), *C. nudulus* Karsch (=*C. anthermoides* Ramme) p. 232, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96**.

Anacridium revision (key p. 13) pp. 7–69; *melanorhodon* Wlk. valid sp. not subsp. of *moestum* p. 16; *melanorhodon* **subsp. n.** *arabafrum* (DIRSH) Africa, Arabia, Suez Canal, S. Persia p. 23; *eximimum* Sjöst. redescription, a valid sp. not syn. of *moestum* p. 34; *rehni* (DIRSH) S. Africa, Mozambique p. 35, *burri* (DIRSH) N. Rhodesia, Angola p. 37 **spp. n.**; *rubrispinum* Bei-Bienko valid sp. not subsp. of *aegyptium* p. 50 figs., DIRSH & UVAROV Eos **29.** —*A. javanicum* see *Valanga*.

Anapropacris **gen. n.** for *Orbillus elegantula* I. Bol. p. 232, UVAROV in DIRSH & UVAROV Tijdschr. Ent. **96.**

Anthermus comis Karsch (=*kirschsteini* Ramme) from *Catantops*; *ebneri* Ramme (=*e. elongatus* Ramme); *violaceus* I. Bol. (=*ornatus* Mill.); *viridipes* L. (=*C. viridipunctatus* Mill.) from *C.* p. 232, DIRSH & UVAROV t.c.—*A.* list of spp. p. 33 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.—*A. cephalicus* (*acutifrons*, *uamicus*, *longiceps*) see *Pyrganthermus*; *swynnertoni* see *Trichocantantops*; *grammicus* see *Catantopsilus*.

Aulacobothrus list of spp. p. 166; *rhodesianus* p. 168, *richardsi* p. 170 **spp. n.** N. Rhodesia figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.—*A. vitripennis* see *Milleriola*.

Basutacris **gen. n.** p. 376, *scotti* **sp. n.** S. Africa p. 377 figs., DIRSH Ann. Mag. nat. Hist. (12) **6.**

Berengueria list of spp., key p. 177 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Brachycatantops **gen. n.** for *Catantops* (*Microcatantops*) *emalicus* Kevan p. 232, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96.**

Callicatantops **gen. n.** for *Catantops cephalotes* I. Bol. p. 232, UVAROV in DIRSH & UVAROV t.c.

Calliptamus spp. of Prague nat. Mus. Exped. to Turkey and from adjoining countries pp. 59–64; *tenuicercis* **subspp. n.** *iracus* Iraq, *anatolicus* Anatolia p. 61; *t.* key to ff. p. 62 figs., MAŘAN Acta ent. Mus. nat. Pragae **27** 1952 no. 384.—*C. barbarus pallidipes* nymph p. 28, WALOFF Proc. R. ent. Soc. Lond. (A) **28.**

Caloptenus dominans, *strictus* see *Xenocatantops humilis*; *quadratus* see *Catantops*.

Cardenius fumosus I. Bol. (=*angolensis* Ramme) from *Stenocrobylus*; *baumei* Karny from *Catantops* p. 233, DIRSH & UVAROV Tijdschr. Ent. **96.** —*C. rammei* **sp. n.** Angola p. 37 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Cataloipidius see *Cyathosternum*; *roseus* see *C. prehensile*.

Catantopides and *C. opthalmicus* see *Pirithoicus*.

Catantops Schaum (=subgen. *Vitticatantops* Sjöst.); *melanostictus* Schaum (=*momboensis* Sjöst.); *sordidus* Wlk. a subsp. of *melanostictus*; *innotabilis* Wlk. (=*indicus* I. Bol.) (from *Acridium*) a subsp. of *pinguis*; *fasciatus* Karny (=*maculatus* Karny); *humeralis* Thnb. (=*Acridium capicola* Stål, *C. obscurus* Karny) from *Gryllus*; *pulchripes* Karny (=*irritans* Ramme); *distinguendus* Stål (=*coerulescens* Sjöst.); *kissenjianus* Rehn (=*glauningi* Ramme, *dubiosus* Sjöst., *zigzag* Sjöst.); *quadratus* Wlk. (=*q. togoensis* Ramme) from *Caloptenus*; *decipiens* Karsch (=*neglectus* Ramme); *curvicercus* Mill. (=*loveni* Sjöst., *kilimensis* Sjöst.); *somalicus* Sjöst. (=*joycei* Dirsh); *axillaris* Thnb. (=*Acridium debilitatum* Serv., *A. decoripes* Wlk., *C. versicolor* Krauss, *Osmilia rufipes* (partim) Kirby) from *Gryllus*; *saucius* Burm. (=*insulanus* Karny, *brunneri* Karny, *taramassi* Giglio-Tos) (from *Acridium*) a subsp. of *axillaris*; *libericus* Uv. a subsp. of *axillaris* not of *saucius*; *spissus* Wlk. (=*annulipes* Stål, *praemonstrator* Karsch, *humilis* var. *interruptus* I. Bol., *exsul* Karny, *wernerellus* Karny, *imperator* I. Bol., *uniformis* Brun., *camerunensis* Sjöst.) from *Cyrtacanthacris*; *adustus* Wlk. (from *Acridium*) a subsp. of *spissus*; *sacalva* Branc. (=*acuticercus* I. Bol.) p. 233; *bifidus* Karsch (=*exiguus* Karny); *debilis* Krauss (=*elegans* Karny) p. 234, DIRSH & UVAROV Tijdschr. Ent. **96.**—*C. magnicercus*

p. 20, *trimaculatus* p. 21 **spp. n.** Angola; *modicus* Karsch synonymy p. 22 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.—*C. decoratus* (*d.* var. *concolor*), *d. rosaceus, johnstoni, neumanni, signatus* see *Phaeocatantops*; *hemipterus, rufipes* (*fuscipes, sulphureus* f. *tibialis, d. sanguinipes*), *sulphureus* (*s. femorata*), *fretus* (*staeli*) see *P. decoratus*; *femoratus aurantius* see *P. d.*; *tukuyensis* (*simplex* var. *elgonensis*), *villosus, v. violacipennis, hirtus, pachycerus, digitatus* see *Trichocatantops*; *angustulus* see *Abracris nebulosa*; *vanus* (*pallens*) see *Pseudopropacris*; *exinsula, vitripennis* (*australis*) see *Stenocatantops*; *papuanus* see *S. angustifrons*; *modicus* see *Exopropacris*; *mellitus* (*schoutedeni, captiosus, forcipatus, interveniens, pulcher*) see *E. modica*; *ueleensis* see *E. rehni*; *crassipes* see *Pachycatantops*; *congoensis* (*sulcatus, nigrospinosus*. see *Oxycatantops*; *semialatus* see *Oxyaeida*; *sulcifer* see *Orbillus*; *orientalis* see *Nisiocatantops*; (*Vitticatantops*) *congoensis*, (*V.*) *lobipennis, impotens, kinangopi, ngongi* see *Pezocatantops*; *fumipennis* see *Madimbania*; *pamae* see *M. madimbana*; *miles* see *Oenocatantops*; *asthmaticus* see *Catantopsis*; *speciosus, brachycerus* see *Xenocatantops humilis*; *baumei* see *Cardenius*; *notatus* (*karschi, minimus, kraussi, bipunctatus, simplex, frater*), *nudulus* (*anthermoides*) see *Anacatantops*; *cephalotes* see *Callicatantops*; (*Microcatantops*) *emalicus* see *Brachycatantops*; *nigricornis* see *Eupropacris*; *comis, viridipes* (*viridipunctatus*) see *Anthermus*)

Catantopsilus elongatus Ramme (=*imitator* Ramme, *i. benüensis* Ramme) a sp. not subsp. of *taeniolatus*; *ugandanus* Uv. (=*plagiatus similis* Ramme) a sp. not subsp. of *t.*; *grammicus* I. Bol. from *Anthermus* p. 234, DIRSH & UVAROV Tijdschr. Ent. **96.**

Catantopsis opomaliformis I. Bol. (=*o. togoensis* Ramme); *basalis* Wlk. (=*marginatus* Karny, *punduensis* Sjöst.) from *Heteracris*; *asthmaticus* Karsch from *Catantops* p. 234, DIRSH & UVAROV t.c.

Cawendia hebardi p. 107, *kibara* p. 112 **spp. n.** Belg. Congo figs., REHN Trans. Amer. ent. Soc. **79.**

Cephalacris see *Charilaus*.

Charilainae **subfam. n.** p. 162, key to genn. p. 163, DIRSH Ann. Mag. nat. Hist. (12) **6.**

Charilaus Stål (=*Cephalacris* Bol.) p. 163; *carinatus* S. (=*miraculum* B.) redescription p. 164; *curvicollis* Karny (=*brunneri* ♂ Sauss.) p. 166, redescription p. 167 figs., DIRSH t.c. —*C. monomorphus*, *brunneri* (♀) see *Hemicharilaus*.

Chirista compta Wlk. (=*Duronia pegasus* Rehn) p. 143, UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Chlorizeina malabarensis **sp. n.** India p. 117 fig., KEVAN J. Wash. Acad. Sci. **43.**

Chokwea **gen. n.** p. 153, *burri* (type) Angola, *bredoi* N. Rhodesia p. 154, *backlundi* p. 155, *fitzgeraldi* p. 156 Tanganyika **spp. n.** figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Chortipus dorsatus **var. n.** *macropterus* Silesia p. 24, GÖRTLER Acta Mus. Siles. (A) **1** 1951.

Chortoicetes albomarginatus see *Gymnobothrus subparallelus*.

Chrotogonus oxypterus Blanch. (=*Gryllus scaber* F. p. 485, *C. saussurei* I. Bol., *brachypterus* I. Bol., *fuscescens* Kby. p. 486), KEVAN Ent. Medd. **26.** —*C. homalodemus* Blanch. (=*lugubre* Blanch.) from *Ommexecha* pp. 221–222, KEVAN Ent. mon. Mag. **89.**—*C. fumosus* I. Bol. (=*meridionalis* Sauss., *rotundatus* Kby.) p. 203 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Clematodina **gen. n.** p. 479, *eckardtiana* **sp. n.** Brazil p. 481 figs., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Cohembia **gen. n.**, *acuta* **sp. n.** Angola p. 135 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Colpolopha waehneri **sp. n.** Brazil p. 476 fig., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Cophohippus **gen. n.**, *burri* (type) (also Belg. Congo, N. Rhodesia) p. 180, *nazarovi* p. 181 **spp. n.** Angola figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Coptacra mellifica see *Eucoptacra anguliflava*.

Coptacroides see *Eucoptacra*.

Crobylostenus pudicus **sp. n.** Angola p. 46 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Culmulus **gen. n.** p. 163, *stramineus* (type), *crassior* **spp. n.** Angola p. 164 figs., UVAROV t.c.

Cultrinotus luanensis **sp. n.** N.W. Rhodesia p. 201 figs., UVAROV t.c.

Cyathosternum I. Bol. (=*Cataloipidius* I. Bol., *Kapiria* Ramme); *prehensile* I. Bol. (=*Cataloipidius roseus* I. Bol., *K. paradozocera* Ramme) p. 94 figs., UVAROV t.c.

Cygniterra **subgen. n.** (type *maculicornis* Sjöst.) see *Monistria*.

Cymochtha see *Orthochtha*.

Cyrtacanthacris spissus see *Catantops*; *rubiginosa* see *Stenocatantops angustifrons*; *punctipennis* see *Xenocatantops humilis*.

Dasyhippus uvarovi **sp. n.** Turkey p. 190 figs., KARABAG Eos **29**.

Desmoptera I. Bol. (=*Platydesmoptera* Ramme) p. 44, REHN Grasshoppers and locusts Aust. vol. **2**.

Dictyophorus synonymy pp. 103–105; (*Tapesiella* **subgen. n.** p. 104), KEVAN Ent. mon. Mag. **89**.

Dnopherula Karsch (=*Ticra* I. Bol.) p. 177; list of spp., key; *callosa* Karsch (=*T. pictipes* I. Bol.); *plagiata* Angola, Belg. Congo p. 178, *crucigera* Tanganyika, N. Rhodesia p. 179 **spp. n.** figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Duronia list of known spp. p. 143, key to African spp.; *curta* **sp. n.** S. Africa, S. Rhodesia, Belg. Congo p. 144 figs., UVAROV t.c.—*D. pegasus* see *Chirista compta*; *ituriensis* see *Roduniella insipida*; *acuticeps* see *Paracomacris centralis*; *pooensis*, *tricarinata* see *P. producta*.

Eleutherotheca list of spp. p. 182; *brachycera* **sp. n.** Angola p. 183 figs., UVAROV Pub. cult. Cia Diamant. Angola no. 21.

Eucerohippus see *Taramassus*.

Eucoptacra I. Bol. (=*Coptacroides* I. Bol.) p. 47; list of African spp. p. 48, key p. 49; *anguliflava* Karsch (=*Coptacra mellifica* I. Bol.); *exigua* I. Bol. (=*pallida* I. Bol.) p. 48; *paupercula* Kby. (=*parvula* Ramme) p. 49; *similis* p. 51, *nana* p. 52, *deflecta* Angola, *modesta* N. Rhodesia p. 53 **spp. n.** figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Euprepoptera **gen. n.** p. 145, *polychroma* **sp. n.** Angola p. 146 figs., UVAROV t.c.

Eupropacris congica Ramme a sp. not subsp. of *cylindricollis*; *nigricornis* Karny from *Catantops* p. 234, DIRSH & UVAROV Tijdschr. Ent. **96**. —*E. rammei* see *Pseudopropacris*.

Eusitalces amazonicus Brazil p. 488, *rubripes* Bolivia p. 489 **spp. n.** figs., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Exopropacris rehni Sjöst. (=*sudanica* Dirsh, *Catantops ueleensis* Sjöst.) from *C.*; *mellita* Karsch (=*C. schoutedeni* I. Bol., *captiosus* I. Bol., *forcipatus* Rehn, *interveniens* Sjöst., *pulcher* Sjöst.) (from *C.*) a subsp. of *modica*; *modica* Karsch from *C.* p. 234, DIRSH & UVAROV Tijdschr. Ent. **96**.

Faureia roseoviridis **sp. n.** Angola p. 173 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Gomphocerus sibiricus **subsp. n.** *hemipterus* p. 186; *armeniacus* **subsp. n.** *dimorphus* p. 188 Turkey figs., KARABAG Eos **29**.

Goniocara **gen. n.**, *brevipes* (type) Angola, N. Rhodesia p. 193, *fitzgeraldi* Tanganyika p. 194 **spp. n.** figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Gowdeya picta **subsp. n.** *rubrispina* Belg. Congo p. 105 figs., UVAROV t.c.

Greyacris **gen. n.** p. 62, *variolosa* **sp. n.** W. Australia p. 64 figs., REHN Grasshoppers and locusts Aust. vol. **2**.

Gymnidium Karsch (=*Koranacris* Rehn); *turbinatum* K. (=*K. pumicea* R.) p. 380, DIRSH Ann. Mag. nat. Hist. (12) **6**.

Gymnobothrus I. Bol. (=*Orthochirista* Sjöst.) p. 120; annotated list of African spp. p. 121, key; *subparallelus* Rehn (=*Chortoicetes albomarginatus* Karny, *Pseudochirista houyi* Ramme); *fallax* Karny (=*P. meruensis* Sjöst.) p. 121; *temporalis flexuosus* Schulth. (=*Zacompsa brevipennis* Mill.) p. 122; *gracilis* Ramme (=*Ogmothela rammei* Sjöst.) p. 123; *flaviventris* N. Rhodesia, Belg. Congo p. 126, *sellatus* p. 127, *angolensis* p. 128 Angola **spp. n.** figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Hemiacris prognathica **sp. n.** N. Rhodesia p. 76 figs., UVAROV t.c.

Hemicharilaus **gen. n.** for *Charilaus monomorphus* Uvar. (type), *C. brunneri* ♀ Sauss. (redescription p. 170) p. 167 figs., DIRSH Ann. Mag. nat. Hist. (12) **6**.

Heteracris basalis see *Catantopsis*.

Homoeopternis **gen. n.** p. 112, *crassiceps* **sp. n.** Angola, N. Rhodesia p. 113 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Humpatella key to spp.; *huambae* **sp. n.** Angola p. 209 figs., UVAROV t.c.

Huttonacris **gen. n.** for *Trigoniza campestris* Hutt. (type) and other spp. p. 70 (note), REHN Grasshoppers and locusts Aust. vol. **2**.

Hyperocnocerus **gen. n.** for *Ocnocerus sulculatus* Karsch (type) p. 138; *angolensis* **sp. n.** Angola p. 139 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Kapiria see *Cyathosternum*; *paradoxocera* see *C. prehensile*.

Kingdonella kozlovi p. 463, *tibetana* p. 468 **spp. n.** China, Tibet figs., MISHCHENKO Fn. USSR, Insects: Orthoptera **4** no. 2 1952.

Komandia **gen. n.**, *granosa* **sp. n.** Angola, Belg. Congo, N. Rhodesia p. 195 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Koranacris see *Gymnidium*.

Leva media **sp. n.** N. Rhodesia p. 189 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Lindia see *Taramassus*.

Loveridgea **subgen. n.** (type *impotens* Karsch) see *Parapetasia*.

Lucretilis jucunda **sp. n.** Malaya p. 142 figs., MILLER Proc. R. ent. Soc. Lond. (B) **22**.

Luenia **gen. n.**, *burri* **sp. n.** Angola p. 171 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Madimbania **gen. n.** for *Allotriusia madimbana* Giglio-Tos (=*Catantops pamae* Ramme) (type), *C. fumipennis* Ramme p. 234, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96**. —*M. obesa* **sp. n.** Angola p. 25 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Malcolmburria **gen. n.**, *angolensis* **sp. n.** Angola p. 130 figs., UVAROV t.c.

Mecostibus key to spp. p. 82; *mopanei* p. 83, *mafukae* p. 87 N. Rhodesia, *nyassae* Nyasaland p. 89 **spp. n.** figs., UVAROV t.c.

Milleriola **gen. n.** for *Aulacobothrus vitripennis* Mill. p. 168 (note), UVAROV t.c.

Miramella ebneri Rumania p. 21, *caprai* (with **subsp. n.** *concii* Albania p. 28) Bosnia p. 25 **spp. n.** figs., GALVAGNI Studi trentini **30**.

Monistria key to subgenn. p. 72; (*Yeelanna* pp. 72, 75, *Cygniterra* pp. 72, 215 **subgenn. n.**); key to Australian spp. of subgen. *Yeelanna* p. 76; (*Y.*) *insulana* p. 77, (*Y.*) *mutabilis* p. 83 S. Australia, (*Y.*) *argus* Victoria p. 85, (*Y.*) *pavonina* Australia p. 87 **spp. n.**; key to spp. of subgen. s. str. p. 94; (*M.*) *vinosa* Carl (=*brevicornis* Sjöst., *olivacea* Sjöst.) p. 105; (*M.*) *v.* **subsp. n.** *excelsa* New South Wales p. 112; *lacrimans* Sjöst. a subsp. of *vinosa* p. 119; (*M.*) *flavogranulata* **subsp. n.** *truganinae* Tasmania p. 130; (*M.*) *zebrata* p. 137, (*M.*) *incomitata* p. 193, (*M.*) *umbratilis* p. 202 New South Wales, (*M.*) *limitanea* Queensland p. 184, (*M.*) *cicatricosa* S. Australia p. 210 **spp. n.**; (*M.*) *pustulifera pustulosa* Stål (=*mastax* Sjöst., *cordata* Sjöst.) p. 145; (*M.*) *pustulifera*

subspp. n. *dedita* New South Wales p. 149, *mallee* Victoria p. 154; (*M.*) *sulcata* Tepp. (=*maculatus* Tepp., *flavopustulata* Sjöst.) p. 166; (*M.*) *bolivari* Bran. (=*ecarinata* Sjöst.) p. 178; (*M.*) *ligata* I. Bol. (=*producta* Sjöst.) p. 189; (*M.*) *discrepans* Wlk. (=*conspersa* Stål) p. 206 figs., REHN Grasshoppers and locusts Aust. vol. **2**.

Musimoja **gen. n.**, *exilis* **sp. n.** Angola p. 73 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Nisiocatantops **gen. n.** for *Catantops orientalis* Kirby p. 234, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96**.

Nocarodes bodenheimeri **subsp. n.** *idrisi* p. 193; *rimansonae* **subsp. n.** *kosswigi* p. 195; *citripes* **subsp. n.** *flavitarsis* p. 196 Turkey figs., KARABAG Eos **29**.

Nuceriolus **gen. n.** p. 482, *erythrocerus* **sp. n.** Brazil p. 484 figs., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Ocnocerus sulculatus see *Hyperocnocerus*.

Oenocatantops **gen. n.** for *Catantops miles* Giglio-Tos p. 235, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96**.

Ogmothela rammei see *Gymnobothrus gracilis*.

Ommatolampis leucopterus **subsp. n.** *ovipennis* Brazil p. 486; *nigroguttata* **subsp. n.** *latona* Ecuador p. 487 figs., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.)

Ommexecha Serv. gender discussed p. 221; *homalodemum* Blanch. correct spelling p. 222, KEVAN Ent. mon. Mag. **89**.—*O. homalodemum* see *Chrotogonus*.

Opaon eckardtae **sp. n.** Brazil p. 490 figs., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Ophthalmolampis melanotus **sp. n.** Brazil p. 478 fig., GÜNTHER t.c.

Orbillus St. a valid gen. not syn. of *Eupropacris* p. 31, UVAROV Publ. cult. Cia Diamant. Angola no. 21.—*O. sulcifer* Karny from *Catantops* p. 235, DIRSH & UVAROV Tijdschr. Ent. **96**.—*O. elegantula* see *Anapropacris*.

Orthacris key to Ceylonese spp. p. 20; *incongruens* Carl (=*fusiformis* I. Bol.) (FERRIÈRE in KEVAN) p. 17 (note); *robusta* S. India p. 21, *major* p. 23, *elongata* p. 24, *gracilis* p. 30, *curvicerca* p. 32 Ceylon **spp. n.**; *filiformis* redescription p. 26; *ceylonica* Kby. from *Wacata* p. 28 figs., KEVAN Spolia zeylan. **27**.

Orthochirista see *Gymnobothrus*.

Orthochtha Karsch (=*Cymochtha* Karsch) p. 146; *dimorphipes* **sp. n.** N. Rhodesia p. 147 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Osmilia rufipes (partim) see *Catantops axillaris*.

Oxya oxyura **sp. n.** Angola p. 68 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Oxyaeida semialata Sjöst. from *Catantops* p. 235, DIRSH & UVAROV Tijdschr. Ent. **96**.

Oxybothrus **gen. n.** p. 128, *punctifrons* **sp. n.** Angola p. 129 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Oxycardenius **gen. n.**, *tinctipennis* **sp. n.** Angola p. 235, UVAROV in DIRSH & UVAROV Tijdschr. Ent. **96**.

Oxycatantops **gen. n.** for *Catantops congoensis* Sjöst. (=*C. sulcatus* Sjöst., *nigrospinosus* Sjöst.) p. 235, DIRSH in DIRSH & UVAROV t.c.

Oxyparga **gen. n.**, *parabolica* (type) p. 161, *rotundata* p. 162 **spp. n.** Angola figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Pachycatantops **gen. n.** for *Catantops crassipes* Ramme p. 235, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96**.

Pamphagodes riffensis ♀ redescribed p. 171 figs., DIRSH Ann. Mag. nat. Hist. (12) **6**.

Paracardenius lineatus **sp. n.** N. Rhodesia p. 40 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Paracomacris list of spp. & subspp. p. 149, key p. 151; *centralis* Rehn (=*deceptor* f. *kilimana* Sjöst., *Duronia acuticeps* I. Bol.); *c.* **subsp. n.** *planicola* Tanganyika p. 149; *producta* Wlk. (=*deceptor* Karsch, *D. pooensis* I. Bol., *D. tricarinata* I. Bol.); *stenoptera* **subsp. n.** *montana* Abyssinia; *s. pharaonis* Karny (=*Phlaeoba pharaonis* var. *aterrima* Karny) p. 150; *acuta* **sp. n.** Angola p. 153 figs., UVAROV t.c.

Paragymnobothrus gracilis **sp. n.** Angola, Belg. Congo p. 185 figs., UVAROV t.c.

Paraparga breviceps p. 159, *extensa* p. 160 **spp. n.** Angola figs., UVAROV t.c.

Parapetasia (*P.*) *calabarica* S. Nigeria p. 122, (*Loveridgea* **subgen. n.** pp. 120, 124) *ulugurensis* Tanganyika p. 126 **spp. n.** figs., REHN Trans. Amer. ent. Soc. **79.**

Paraspathosternum pedestris Mill. (=*stenopterum* Ramme) p. 67 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Parepistaurus list of spp. p. 56, key p. 57; *crassicercus* Nyasaland p. 57, *amanicus*, *lobicercus* Tanganyika p. 59, *zanzibaricus* Zanzibar p. 60 **spp. n.** figs., UVAROV t.c.

Parga cyanoptera Uv. (=*olsufiewi* Sjöst.) p. 159 (note), UVAROV t.c.

Petasia Serv. *cruentata* Serv. designated type, a syn. of *Dictyphorus* p. 103, KEVAN Ent. mon. Mag. **89.**

Pezocatantops **gen. n.** for *Catantops* (*Vitticatantops*) *congoensis* Sjöst. (type), *C.* (*V.*) *lobipennis* Sjöst., *C. impotens* Johnst., *C. kinangopi* Uv., *C. ngongi* Uv. p. 235, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96.**

Pezotagasta **gen. n.** p. 215, *crassipes* **sp. n.** Angola p. 216 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Phaeocatantops **gen. n.** for *Catantops decoratus* Gerst. (=*d.* var. *concolor* Karny) (type); *hemipterus* Mill. (from *C.*), *rufipes* Karny (=*C. fuscipes* Karny, *sulphureus* f. *tibialis* Ramme, *d. sanguinipes* Uv.) (from *C.*), *sulphureus* Wlk. (=*C. s. femorata* Ramme) (from *C.*), *fretus* Giglio-Tos (=*C. staeli* Kirby) (from *C.*) subspp. of *decoratus*; *aurantius* Uv. a subsp. of *d.* not of *C. femoratus*; *d. rosaceus* Uv., *johnstoni* Uv., *neumanni* Ramme, *signatus* Karsch from *Catantops* p. 236, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96.**

Phalinus list of spp., key to known ♂♂ p. 77; *rammei* N. Rhodesia p. 78, *digitatus* Angola p. 80 **spp. n.** figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Phlaeoba pharaonis var. *aterrima* see *Paracomacris stenoptera pharaonis*; *mossambicensis* see *Pnorisa squalus*.

Phyteumas whellani **sp. n.** S. Rhodesia p. 381 fig., DIRSH Ann. Mag. nat. Hist. (12) **6.**

Pirithoicus Uv. (=*Catantopides* Ramme); *opthalmicus* Karny (=*Pirithous ramachendrai* I. Bol.) (from *C.*) p. 236, DIRSH & UVAROV Tijdschr. Ent. **96.**

Pirithous ramachendrai see *Pirithoicus opthalmicus*.

Platydesmoptera see *Desmoptera*.

Platyphymus list of spp. p. 97, key to ♂♂ p. 98 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Pnorisa squalus Stål (=*Phlaeoba mossambicensis* Branc.); *conica* **sp. n.** Angola p. 184 figs., UVAROV t.c.

Poecilocerastis key to spp. and subspp. p. 54; *rammei* **sp. n.** Angola p. 55 figs., UVAROV t.c.

Propsednura **gen. n.** p. 224, *eyrei* (type) p. 226, *hesperus* (with **subsp. n.** *nana* p. 237) p. 233 **spp. n.** W. Australia figs., REHN Grasshoppers and locusts Aust. vol. **2.**

Prostethophyma see *Pseudoarcyptera*.

Psednura key to Australian spp. p. 240; *collina* Tasmania p. 241, *musgravei* p. 251, *angustissima* p. 261 New South Wales, *lanceolata* S. Australia p. 258 **spp. n.** figs., REHN Grasshoppers and locusts Aust. vol. **2.**

Pseudoarcyptera I. Bol. (=*Prostethophyma* I. Bol.); list of spp. p. 173, key to known ♂♂ p. 174; *bolivari* S. Rhodesia, *curvicerca* Angola, N. Rhodesia p. 175 **spp. n.** figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Pseudochirista houyi see *Gymnobothrus subparallelus*; *meruensis* see *G. fallax*.

Pseudogmothela pedestris **sp. n.** N. Rhodesia p. 187 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Pseudopropacris **gen. n.** for *Eupropacris rammei* Mill. (type); *vana* Karsch (=*Catantops pallens* Karny) from *C.* p. 236, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96.**

Pyrganthermus **gen. n.** for *Anthermus cephalicus* I. Bol. (=*A. acutifrons* Mill., *uamicus* Ramme, *longiceps* Ramme) p. 236, DIRSH in DIRSH & UVAROV t.c.

Pyrgomorpha milleri **n. n.** for *dispar* Mill. (from *Tanita*) nec I. Bol. p. 212 (note), UVAROV Publ. cult. Cia Diamant. Angola no. 21.—*P. ozeki* **sp. n.** Turkey p. 198 figs., KARABAG Eos **29.**

Pyrgomorphella angolensis **sp. n.** Angola p. 130 figs., REHN Trans. Amer. ent. Soc. **79.**

Quangula **gen. n.**, *minuta* **sp. n.** Angola p. 197 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Ramakrishnaia raoi **sp. n.** S. India p. 269 figs., KEVAN Indian J. Ent. **14.**

Rhabdoplea angusticornis p. 139, *callosa* (also Belg. Congo) p. 141 **spp. n.** Angola figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Roduniella insipida Karsch (=*Duronia ituriensis* Rehn) p. 143, UVAROV t.c.

Spathosternum list of spp. p. 63, key to African spp. p. 64; *prasiniferum* Wlk. (=*venulosum* Stål) p. 63; *brevicorne* Uganda, Tanganyika, Belg. Congo, Angola p. 64, *curtum* Angola p. 66 **spp. n.** figs., UVAROV t.c.

Stenobothrus burri **sp. n.** Turkey p. 185 figs., KARABAG Eos **29.**

Stenocatantops **gen. n.** for *Gryllus splendens* Thnb. (type), *Catantops exinsula* Will., *C. vitripennis* Sjöst. (=*C. australis* Sjöst.), *Acridium angustifrons* Wlk. (=*Cyrtacanthacris rubiginosa* Wlk., *Catantops papuanus* Branc.) p. 237, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96.**

Stenocrobylus cervinus Gerst. (=*c. grandis* Ramme) p. 237, DIRSH & UVAROV t.c.—*S. festivus* **subsp. n.** *magnicercus* Belg. Congo, N. Rhodesia, Angola p. 43; *junior* **sp. n.** N. Rhodesia p. 44 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.—*S. fumosus* see *Cardenius*.

Stibarosterna **gen. n.** p. 204, *serrata* **sp. n.** Angola p. 205 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Sumba punctata p. 133, *granulifera* Angola, *semicarinata* Belg. Congo p. 134 **spp. n.** figs., UVAROV t.c.

Swaziacris **gen. n.** p. 378, *burtti* **sp. n.** S. Africa p. 379 figs., DIRSH Ann. Mag. nat. Hist. (12) **6.**

Tagasta indica **subsp. n.** *mutata* N. Thailand p. 138 figs., REHN Trans. Amer. ent. Soc. **79.**

Tanita obesa **sp. n.** Angola p. 212 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.—*T. dispar* see *Pyrgomorpha*.

Tapesia I. Bol. a syn. of *Dictyophorus* p. 104, KEVAN Ent. mon. Mag. **89.**

Tapesiella **subgen. n.** (type *grisea* R. & F.) see *Dictyophorus*.

Taramassus G.-T. (=*Eucerohippus* Ramme, *Lindia* Ramme); list of spp. p. 90; *platycerus* **sp. n.** Angola p. 91 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Tenuitarsus evansi Uv. a form of *angustus* Blanch. p. 41, synonymy p. 43, distribution p. 44; *sudanicus* **sp. n.** Sudan p. 48 figs., KEVAN Proc. R. ent. Soc. Lond. (B) **22.**

Ticra see *Dnopherula*; *pictipes* see *D. callosa*.

Trichocatantops **gen. n.** for *Catantops tukuyensis* Mill. (=*C. simplex* var. *elgonensis* Sjöst.) (type), *C. villosus* Karsch, *C. violaceipennis* Ramme (a sp. not subsp. of *villosus*), *Anthermus swynnertoni* Uv., *C. hirtus* Mill., *C. pachycerus* Ramme, *C. digitatus* I. Bol. p. 237, UVAROV in DIRSH & UVAROV Tijdschr. Ent. **96**. —*T.* list of spp. p. 26; *angolensis* **sp. n.** Angola p. 28 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Trigoniza campestris see *Huttonacris*.

Tristria conica p. 71, *cylindrica* p. 72 **spp. n.** Angola figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Truxalis rufescens, tenuis see *Acrida turrita*; *bicolor* (*pellucida, stali*), *exaltata* (*brevicollis*), *cinereus* (*unicolor, chinensis*), *conicus* (*rafflessii, scitula*) see *Acrida*.

Trybliophorus key to spp. p. 38; *modestus* ♀ allotype p. 40; organ on 7th abdominal sternite p. 45 figs., LIEBERMANN An. Soc. Cient. argent. **156**.

Tylotropidius speciosus Wlk. (= *staeli* Kby., *didymus* var. *voltaensis* Sjöst.) p. 92; *gracilipes* Branc.(=*g.* var. *longipennis* Sjöst., *gaugeri* varr. *macroptera* Karny, *pallida* K.) p. 93; *laxus* Karsch (=*gaugeri* Schulth.) p. 93 (note), UVAROV Publ. cult. Cia Diamant. Angola no. 21.

Valanga javanicum Willemse from *Anacridium* p. 8 figs., DIRSH & UVAROV Eos **29**.—*V. coerulescens* **sp. n.** Solomon Is. p. 2, WILLEMSE Bull. Inst. Sci. nat. Belg. **29** no. 7.

Wacata ceylonica see *Orthacris*.

Waehneriella **gen. n.**, *paludicola* **sp. n.** Brazil p. 474 figs., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Xanthippus corallipes **subsp. n.** *miniatus* California p. 686, STROHECKER Amer. Midl. Nat. **48** 1952.

Xenocatantops **gen. n.** for *Acridium humile* Serv. (type) (=*Caloptenus dominans* Wlk., *C. strictus* Wlk., *Cyrtacanthacris punctipennis* Wlk., *Catantops speciosus* Branc.); *brachycerus* Will. (from *Catantops*) a subsp. of *humilis* p. 237, DIRSH in DIRSH & UVAROV Tijdschr. Ent. **96**.

Xerohippus alkani **sp. n.** Turkey p. 191 figs., KARABAG Eos **29**.

Yeelanna **subgen. n.** (type *insulana* sp. n.) see *Monistria*.

Zacompsa pedestris **sp. n.** Tanganyika p. 132 figs., UVAROV Publ. cult. Cia Diamant. Angola no. 21.—*Z. brevipennis* see *Gymnobothrus temporalis flexuosus*.

Zubovskia koreana **sp. n.** N. Korea p. 352 figs., MISHCHENKO Fn. USSR, Insects: Orthoptera **4** no. 2 1952.

PROSCOPIDAE.

Stiphra cearensis **sp. n.** Brazil p. 473, GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

GRYLLOBLATTIDAE.

Grylloblatta key to N. American spp. p. 325; *rothi* Oregon p. 326, *bifratrilecta* California p. 328 **spp. n.** figs., GURNEY J. Wash. Acad. Sci. **43**.

PHASMIDAE.

Classification and geographical distribution of Phasmatodea, GÜNTHER Beitr. Ent. **3**: 541–562, 4 figs.

Lonchodidae of Parc nat. Upemba, Belg. Congo, JOLIVET Explor. Parc nat. Upemba, Miss. de Witte (1946–1949) fasc. 17: 49–58.

Bacteria waehneri **sp. n.** Brazil p. 495 fig., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Bostra scabrinota ♂ p. 9 figs., REHN Trans. Amer. ent. Soc. **79**.

Isagoras tacanae **sp. n.** Brazil p. 494, GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Korinninae **subfam. n.** p. 546, GÜNTHER Beitr. Ent. **3**.

Libethra minuscula **sp. n.** Peru p. 1 figs., REHN Trans. Amer. ent. Soc. **79**.—*L. acheloa* **sp. n.** Brazil p. 496 fig., GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Phantasca poeciloptera **sp. n.** Colombia, Brazil p. 500, GÜNTHER t.c.

Phyllium pulchrifolium, jacobsoni eggs, wing nervation p. 293, ROEPKE Ent. Ber. **14.**

Podacanthinae **subfam. n.** p. 548, GÜNTHER Beitr. Ent. **3.**

Pterolibethra **gen. n.** p. 498, *heteronemia* **sp. n.** Brazil p. 499, GÜNTHER Arch. Naturgesch., Leipzig (N.F.) **9** 1940.

Xeroderinae **subfam. n.** p. 547, GÜNTHER Beitr. Ent. **3.**

COLLEMBOLA.

Collembola from Kilimanjaro, DELAMARE - DEBOUTTEVILLE Ann. Mag. nat. Hist. (12) **6** : 817–831, 8 figs.

List of cavernicolous Collembola from Apulia, Italy, DELAMARE-DEBOUTTEVILLE Mem. Biogeogr. adriat. **2** : 43–47, 9 figs.

Collembola from Jan Mayen I., GISIN Ann. Mag. nat. Hist. (12) **6** : 228–234, 1 fig.

Notes on Collembola of Br. Isles, GOTO J. Soc. Brit. Ent. **4** : 177–182, 4 figs.

List of Collembola of Omogo valley, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl. : 126–127, figs.

List of Collembola from arctic and boreal Canada, MILLS & RICHARDS J. Kans. ent. Soc. **26** : 53–59, 11 figs.

Dental setae of Collembola, UCHIDA Annot. zool. jap. **26** : 1–3, figs.,

Additions to list of Collembola of Utah, WRAY & KNOWLTON Gr. Basin Nat. **13** : 43–46.

Achorutes ireneae p. 2, *utahensis* p. 4 **spp. n.** U.S.A. figs., WRAY Nature Notes, Raleigh, N.C. Occ. Pap. no. 1.

Anurida uniformis, sensillata **spp.n.** Switzerland p. 56 figs., GISIN Mitt. schweiz. ent. Ges. **26.**—*A. maritima* Guér. (=*bisetosa* Bagn.) p. 249 fig., GOTO & DELAMARE-DEBOUTTEVILLE Ent. mon. Mag. **89.**—*A. trioculata, granaria* in Japan pp. 66–69, UCHIDA Kontyû **19** 1951.

Anurophorus oredonensis **sp. n.** Fr. Pyrenees p. 155 figs., CASSAGNAU Rev. franç. Ent. **20.**

Brachystomella agrosa **sp. n.** Porto Rico p. 148 figs., WRAY J. Agric. Univ. P.R. **37.**

Dicranocentrella **subgen. n.** (type *marias* sp. n.) see *Dicranocentrus.*

Dicranocentroides (*Dicranocentropha* **subgen. n.**) *sabana* **sp. n.** Porto Rico p. 144 figs., WRAY J. Agric. Univ. P.R. **37.**

Dicranocentropha **subgen. n.** (type *sabana* sp. n.) see *Dicranocentroides.*

Dicranocentruga **gen. n.** p. 141, *jataca* **sp. n.** Porto Rico p. 143 figs., WRAY J. Agric. Univ. P.R. **37.**

Dicranocentrus (*Dicranocentrella* **subgen. n.** p. 140) *marias* **sp. n.** Porto Rico p. 141 figs., WRAY t.c.

Dicyrtomina rufescens **f. n.** *nivalis* Japan p. 3 figs., UCHIDA Annot. zool. jap. **26.**

Drepanocyrtus steinmetzi p. 4, *knowltoni, dowlingi* p. 5 **spp. n.** U.S.A. figs., WRAY Nature Notes, Raleigh, N.C. Occ. Pap. no. 1.

Drepanura kanaba **sp. n.** Utah p. 4 figs., WRAY t.c.

Entomobrya arnaudi **sp. n.** Washington p. 7 figs., WRAY t.c.

Folsomia sexoculata Tullb. (=**varr.** *alpigena* Stach, *britannica* S.) p. 232 ; *bisetosa* **sp. n.** Jan Mayen I. p. 233, GISIN Ann. Mag. nat. Hist. (12) **6.**—*F. setosa* **sp. n.** Switzerland p. 61 fig., GISIN Mitt. schweiz. ent. Ges. **26.**—*F. sylvia* **sp. n.** Porto Rico p. 148 figs., WRAY J. Agric. Univ. P.R. **37.**—*F. fontis* **sp. n.** Japan p. 67 figs., YOSII Annot. zool. jap. **26.**

Friesea africana **sp. n.** Kilimanjaro p. 822 figs., DELAMARE-DEBOUTTEVILLE Ann. Mag. nat. Hist. (12) **6.**

Gibberathrix **gen. n.** p. 1, *tsugarensis* **sp. n.** Japan p. 2 figs., UCHIDA Mushi **24** 1952.

Heteromurus nitidus **subsp. n.** *armapollerae* Italy p. 33, MASSERA Boll. Soc. ent. ital. **82** 1952.

Homidia socia **f. n.** *flava* Japan p. 69 figs., YOSII Annot. zool. jap. **26.**

Hypogastrura acuminata p. 306, *crassispina* p. 307 **spp. n.** S.W. France fig., CASSAGNAU Bull. Soc. Hist. nat. Toulouse **87** 1952.

Isotoma tariva p. 54, *brucei* **spp. n.** U.S.A.; key to eyeless forms p. 55; *brucealla* **n. n.** for *brucei* Wray nec Carp. p. 66; *acrea* **sp. n.** N. Carolina p. 82, WRAY Bull. Brooklyn ent. Soc. **48.**

Lepidocyrtinus italicus **sp. n.** Italy p. 110 figs., CASSAGNAU & DELAMARE-DEBOUTTEVILLE Boll. Soc. ent. ital. **83.**—*L. armillata* **f. n.** *pallida* Kilimanjaro p. 826 figs., DELAMARE-DEBOUTTEVILLE Ann. Mag. nat. Hist. (12) **6.**

Lepidocyrtus christianseni **sp. n.** Massachusetts p. 30 figs., GOTO Ann. Mag. nat. Hist. (12) **6.**—*L. beaucatcheri* **var. n.** *olforti* N. Carolina p. 82, WRAY Bull. Brooklyn ent. Soc. **48.**—*L. caprilesi* **sp. n.** Porto Rico p. 145 figs., WRAY J. Agric. Univ. P.R. **37.**

Mesaphorura kilimanjarica p. 818, *salti* p. 820 **spp. n.** Kilimanjaro figs., DELAMARE - DEBOUTTEVILLE Ann. Mag. nat. Hist. (12) **6.**

Micranurida meridionalis, candida **spp. n.** S.W. France p. 310 fig., CASSAGNAU Bull. Soc. Hist. nat. Toulouse **87** 1952.

Mitchellania **gen. n.** p. 1, *hermosa* **sp. n.** N. Carolina p. 2 figs., WRAY Nature Notes, Raleigh, N.C. Occ. Pap. no. 1.

Morulina callowayia **sp. n.** N. Carolina p. 1 figs., WRAY t.c.

Neanura bullsa characters p. 7 figs., WRAY t.c.

Onychiurus absoloni, furcifer, quadrituberculatus pseudocelli p. 58; *boneti* **sp. n.** Spain; *handschini* characters p. 60, GISIN Mitt. schweiz. ent. Ges. **26.**—*O. groenlandicus* redescription p. 229; *macfadyeni* **sp. n.** Jan Mayen I. p. 230, GISIN Ann. Mag. nat. Hist. (12) **6.**

Portachorutes **gen. n.**, *mambatus* **sp. n.** Porto Rico p. 147 figs., WRAY J. Agric. Univ. P.R. **37.**

Proisotoma (*P.*) *admaritima* **sp. n.** Scotland p. 103 figs., MURPHY Proc. R. ent. Soc. Lond. (B) **22.**

Pronura **gen. n.**, *kilimanjarica* **sp. n.** Kilimanjaro p. 823 figs., DELAMARE-DEBOUTTEVILLE Ann. Mag. nat. Hist. (12) **6.**

Prospinanura oxfordi **sp. n.** N. Carolina p. 40, WRAY Bull. Brooklyn ent. Soc. **48.**

Protanura aphoruroides **sp. n.** Japan p. 69 figs., YOSII Annot. zool. jap. **26.**

Proxenyllodes aberrans **sp. n.** S.W. France p. 309 fig., CASSAGNAU Bull. Soc. Hist. nat. Toulouse **87** 1952.

Pseudosinella imparipunctata **sp. n.** Switzerland p. 62, GISIN Mitt. schweiz. ent. Ges. **26.**—*P. subfusa* **sp. n.** Porto Rico p. 149 figs., WRAY J. Agric. Univ. P.R. **37.**

Ptenothrix lactea p. 5, *tricycla* p. 7, *ryoheii* p. 8 **spp. n.** Japan figs., UCHIDA Annot. zool. jap. **26.**

Sminthurinus concolor **subsp. n.** *alpinus* Swiss-Austrian Alps p. 234, GISIN Ann. Mag. nat. Hist. (12) **6.**—*S. salti* **sp. n.** Kilimanjaro p. 828 figs., DELAMARE - DEBOUTTEVILLE Ann. Mag. nat. Hist. (12) **6.**

Sphyrotheca aleta **sp. n.** Porto Rico p. 149 figs., WRAY J. Agric. Univ. P.R. **37.**

Stenognathellus **gen. n.**, *denisi* **sp. n.** France p. 227 fig., CASSAGNAU Bull. Soc. ent. Fr. **78.**

Tetracanthella delamarei p. 150, *reticulata* p. 151, *pyrenaica, pseudomontana* p. 152 **spp. n.** Fr. Pyrenees; key to spp. p. 154 figs., CASSAGNAU Rev. franç. Ent. **20.**

Troglopedetes ruffoi **sp. n.** Apulia, Italy p. 44 figs., DELAMARE-DEBOUTTEVILLE Mem. Biogeogr. adriat. **2.**

Tullbergia arctica Wahlgr. valid not synonym of *krausbaueri* Börn., redescription p. 232, GISIN Ann. Mag. nat. Hist. (12) **6.**—*T. ramicuspis* **sp. n.** Switzerland p. 60 fig., GISIN Mitt. schweiz. ent. Ges. **26.**—*T. callipygos* **f. n.** *hirsuta* S.W. France p. 305 fig., CASSAGNAU Bull. Soc. Hist. nat. Toulouse **87** 1952.

Uzelia hansoni **sp. n.** N.W. Territory, Canada p. 55, MILLS & RICHARDS J. Kans. ent. Soc. **26.**

THYSANURA.

Check list of British Thysanura, DELANY Ent. mon. Mag. **89** : 144–145.

List of Thysanura of Omogo valley, Japan, ISHIHARA, MIYATAKE, HISAMATSU, EDASHIGE & SASAKI Trans. Shikoku ent. Soc. **3** suppl. : 126, figs.

Some Machilidae from Germany, JANETSCHEK Zool. Anz. **151** : 20–24, 5 figs.

Japygidae of Afghanistan, PAGÉS Vidensk. Medd. dansk naturh. Foren. Kbh. **115** : 159–167, 2 figs.

Japygidae of Chile, SILVESTRI 1951 Rev. chil. Hist. nat. **51–53** : 67–82, 11 figs.

Some Machilidae and Lepismatidae from Israel, Cyprus and Arabia, WYGODZINSKY 1952 Bull. Res. Counc. Israel **2** : 260–263, 13 figs.

Acrotelsella gigantea variation p. 452 figs., WYGODZINSKY Acta zool. lilloana **11** 1951.

Apteryskenoma **n. n.** for *Bakerella* Womers. nec Crawf. p. 30, PACLT Insecta matsum. **18** 1952.

Bakerella see *Apteryskenoma.*

Campodea (*Dicampa*) *insulana* **sp. n.** Corsica p. 562 fig., CONDÉ Bull. Mus. Hist. nat., Paris (2) **24.**—*C.* (*C.*) *monspessulana* **sp. n.** France p. 406 fig., CONDÉ op. cit. (2) **25.**

Ctenolepisma wahrmani **sp. n.** Israel p. 261 figs., WYGODZINSKY Bull. Res. Counc. Israel **2** 1952.—*C. villosa* redescription pp. 677–682 figs., YOSII Zool. Mag., Tokyo **51** 1939.

Dilta Strand (=*Praemachilis* Silv. of British List) *littoralis* Wom. (=*thornleyi* W.) p. 77, DELANY Ent. mon. Mag. **89.**

Eutrichocampa thamugadensis characters p. 564 figs., CONDÉ Bull. Mus. Hist. nat., Paris (2) **24.**

Kohjapyx **gen. n.** p. 159, *serfatyi* **sp. n.** Afghanistan p. 160 figs., PAGÉS Vidensk. Medd. dansk naturh. Foren. Kbh. **115.**

Lepisma saccharalis early stages p. 104, genitalia p. 149 figs., SAHRHAGE Z. wiss. Zool. **157.**

Lepismachilis key to Centr. European spp. p. 65 ; *y-signata* in Germany p. 64 fig., JANETSCHEK Zool. Anz. **150.**—*L. philippi* **sp. n.** Zannone I. p. 134 figs., WYGODZINSKY Boll. Soc. ent. ital. **83.**

Machilellus key to American spp. p. 443 ; *platensis* Silvestri re-description p. 446 ; *souzalopesi* Brazil p. 448, *martinezi* Argentina p. 450 **spp. n.** figs., WYGODZINSKY Acta zool. lilloana **11** 1951.

Machilinus key to Argentine spp. p. 436 ; *inopinatus* **sp. n.** Argentina p. 437 figs., WYGODZINSKY t.c.—*M. cisatlanticus* **sp. n.** N. Africa p. 128 figs., JANETSCHEK Zool. Anz. **150.**

Machilis friderici p. 55, *conospinifera* p. 59 (with **var. n.** *plurimaculata* p. 64), *alpicola* p. 65 **spp. n.** France figs., JANETSCHEK Rev. franç. Ent. **20.**—*M. germanica* **sp. n.** Germany p. 20 figs., JANETSCHEK Zool. Anz. **151.**

Machiloides gallardoi **sp. n.** Argentina p. 439 ; key to Argentine spp. p. 443 figs., WYGODZINSKY Acta zool. lilloana **11** 1951.

Parajapyx (*P.*) *condei* p. 97, (*Grassjapyx*) *priesneri* p. 100, (*G.*) *chichinii* p. 169 **spp. n.** Egypt figs., PAGÉS Bull. Mus. Hist. nat., Paris (2) **25.**

Plusiocampa corcyraea **subsp. n.** *cyrnensis* Corsica p. 566 figs., CONDÉ Bull. Mus. Hist. nat., Paris (2) **24.**

Praemachilis see *Dilta.*

Projapyx jeanneli further characters p. 489 ; *eburneus* P. & D. D. from *Symphylurinus* p. 493 figs., PAGÉS Bull. Mus. Hist. nat., Paris (2) **25.**

Prosthecina addititia **sp. n.** Mexico p. 456 figs., WYGODZINSKY Acta zool. lilloana **11** 1951.

Symphylurinus remyi **sp. n.** Sahara p. 475 figs., PAGÉS Bull. Soc. zool. Fr. **77.**—*S. eburneus* see *Projapyx.*

Thermobia domestica early stages p. 104, genitalia p. 148 figs., SAHRHAGE Z. wiss. Zool. **157.**

FOSSILS.

Some Miocene and Oligocene insects from Austria and neighbouring districts, BEIER 1952 S.B. Akad. Wiss. Wien Abt. I **161** : 129–134, 1 pl. 2 figs.

Zygoptera and Copeognatha of Kuznetzk basin, BEKKER-MIGDISOVA Dokl. Akad. Nauk SSSR (N.S.) **90** : 97–100.

Summary of the geological section in Manchuria, ENDÔ Sci. Reps Saitama Univ. (B) **1** : 105–114.

List of Lower Permian insects of Germany, HAUPT 1952 Jb. hallesch. mitteldtsch. Erdgesch. **1** : 257–258.

Elytra of insect (probably Carabid) Oligocene, Rumanian Carpathians, JONET 1952 Bull. Soc. belg. Géol. Pal. Hydr. **61** : 131–133, 2 figs.

Triassic life of the Connecticut valley, LULL Bull. Conn. geol. nat. Hist. Surv. no. 81 : 1–336, 12 pls. 167 figs. [Ins. pp. 34–46.]

Fossil Mecopteroid insects from Upper Permian of New South Wales, RIEK Rec. Aust. Mus. **23** : 55–87, 2 pls. 67 figs.

Climates of W. Europe during Tertiary according to study of fossil insects, THEOBALD 1952 Geol. Rdsch. **40** : 89–92.

Phthiraptera eggs on hairs in amber, VOIGT 1952 Mitt. geol. (St) Inst. Hamburg **21** : 59–74, 3 pls. 8 figs.

Coleoptera.

List of fossil Mordellidae and Lamellicornia from Tertiary of Rott, STATZ 1952 Palaeontographica (A) **102** : 15–16.

Anchorthorrhinus **gen. n.** (Curculionidae) p. 131, *incertus* **sp. n.** amber, Germany p. 132 figs., Voss Mitt. geol. (St) Inst. Hamburg **22.**

Aphodius schlickumi, helvolus **spp. n.** Upper Oligocene, Rott p. 6 figs., STATZ Palaeontographica (A) **102** 1952.

Apion (*Stenapion* ?) *subdiscedens* **sp. n.** amber, Germany p. 126 figs., Voss Mitt. geol. (St) Inst. Hamburg **22.**

Archelytron **gen. n.**, *priscus* **sp. n.** Lower Permian, Germany p. 248 figs., HAUPT Jb. hallesch. mitteldtsch. Erdgesch. **1** 1952.

Archimetrioxena **gen. n.**(Curculionidae) p. 123, *electrica* **sp. n.** amber, Germany p. 124 figs., Voss Mitt. geol. (St) Inst. Hamburg **22.**

Car succinicus **sp. n.** amber, Germany p. 125 figs., Voss t.c.

Ceruchites **gen. n.** (Lucanidae), *hahnei* **sp. n.** Upper Oligocene, Rott p. 5 figs., STATZ Palaeontographia (A) **102** 1952.

Geotrupes rottensis **sp. n.** Upper Oligocene, Rott p. 7 figs., STATZ t.c.

Isalcidodes **gen. n.** (Curculionidae), *macellus* **sp. n.** amber, Germany p. 134 figs., Voss Mitt. geol. (St) Inst. Hamburg **22.**

Lithopissodes **gen. n.** (Curculionidae), *luschitzensis* **sp. n.** Oligocene, Bohemia p. 132 fig., BEIER S.B. Akad. Wiss. Wien Abt. I **161** 1952.

Maladera spinitibialis **sp. n.** Upper Oligocene, Rott p. 9 figs., STATZ Palaeontographica (A) **102** 1952.

Mordella indata p. 3, *nigrapilosa* p. 4 **spp. n.** Upper Oligocene, Rott figs., STATZ t.c.

Necrodryophthorus **gen. n.** (Curculionidae) p. 135, *inquilinus* **sp. n.** amber, Germany p. 137 figs., Voss Mitt. geol. (St) Inst. Hamburg **22.**

Onthophagus mülleri **sp. n.** Upper Oligocene, Rott p. 8 figs., STATZ Palaeontographica (A) **102** 1952.

Pachypleurites **gen. n.**, *nodosus* **sp. n.** Lower Permian, Germany p. 247 figs., HAUPT Jb. hallesch. mitteldtsch. Erdgesch. **1** 1952.

Paonaupactus **gen. n.** (Curculionidae) p. 127, *sitonitoides* **sp. n.** amber, Germany p. 128 figs., Voss Mitt. geol. (St) Inst. Hamburg **22**.

Pareustolus **subgen. n.** (type *scheelei* sp. n.) see *Polydrosus*.

Phausis fossilis **sp. n.** Oligocene, Bohemia p. 131, BEIER S.B. Akad. Wiss. Wien Abt. I **161** 1952.

Polydrosus (*Pareustolus* **subgen. n.**) *scheelei* **sp. n.** amber, Germany p. 129 figs., Voss Mitt. geol. (St) Inst. Hamburg **22**.

Procarpophilus **gen. n.** (Nitidulidae), *macgillavryi* **sp. n.** Tertiary, Sumatra p. 44 figs., DE JONG Zool. Meded. **32**.

Pseudomecorhis **gen. n.** (Anthribidae) p. 121, *simulator* **sp. n.** amber, Germany p. 122 figs., Voss Mitt. geol. (St) Inst. Hamburg **22**.

Synommatodes **subgen. n.** (type *patruelis* sp. n.) see *Synommatus*.

Synommatus (*Synommatodes* **subgen. n.** p. 137), *patruelis* **sp. n.** amber, Germany p. 138 figs., Voss Mitt. geol. (St) Inst. Hamburg **22**.

Hymenoptera.

Phylogeny and evolution of fossil bees, MANNING 1952 Proc. Linn. Soc. Lond. **163** : 5–7.

Trichoptera.

Cladochoristidae **fam. n.** p. 78 figs., RIEK Rec. Aust. Mus. **23**.

Megaloptera.

Permosialis sp. larva Kargala, Volga region, permian pp. 731–732 figs., SHAROV Dokl. Akad. Nauk SSSR (N.S.) **89**.

Neuroptera.

Archeosmylidae **fam. n.** p. 85 figs., RIEK Rec. Aust. Mus. **23**.

Archeosmylus **gen. n.** p. 85, *pectinatus* **sp. n.** Upper Permian, New South Wales p. 86 figs., RIEK t.c.

Osmylopsychops radialis **sp. n.** Upper Triassic, France p. 271 figs., LAURENTIAUX, ELLENBERGER & RICOUR Bull. Soc. géol. Fr. (6) **2**.

Permithone neoxenus **sp. n.** Upper Permian, New South Wales p. 82 figs., RIEK Rec. Aust. Mus. **23**.

Permoberothella **gen. n.**, *perplexa* **sp. n.** Upper Permian, New South Wales p. 80 figs., RIEK t.c.

Permopsychopsidae **fam. n.** p. 83 figs., RIEK t.c.

Permorhipida **gen. n.**, *furcativenosa* **sp. n.** Lower Permian, Germany p. 252 figs., HAUPT Jb. hallesch. mitteldtsch. Erdgesch. **1** 1952.

Mecoptera.

Mecoptera of Kuznetzk Basin (Carboniferous), MARTYNOVA Dokl. Akad. Nauk SSSR (N.S.) **89** : 727–729.

Agetochoristella **gen. n.**, *adscita* **sp. n.** Upper Permian, New South Wales p. 68 fig., RIEK Rec. Aust. Mus. **23**.

Choristotanyderus **gen. n.**, *nanus* **sp. n.** Upper Permian, New South Wales p. 76 figs., RIEK t.c.

Ctenostematopteryx **gen. n.**, *thuringiaca* **sp. n.** (type) p. 253, *minor*, *diversa* p. 255 **spp. n.** Lower Permian, Germany figs., HAUPT Jb. hallesch. mitteldtsch. Erdgesch. **1** 1952.

Mesochorista dubia, *phipa* **spp. n.** Upper Permian, New South Wales p. 63 figs., RIEK Rec. Aust. Mus. **23**.

Mesopanorpodes belmontensis p. 70, *robustus* p. 71 **spp. n.** Upper Permian, New South Wales figs., RIEK t.c.

Nannochoristella **gen. n.**, *reducta* **sp. n.** Upper Permian, New South Wales p. 74 figs., RIEK t.c.

Neoageta **gen. n.**, *elongata* **sp. n.** Upper Permian, New South Wales p. 67 figs., RIEK t.c.

Neochoristella **gen. n.**, *optata* **sp. n.** Upper Permian, New South Wales p. 74 figs., RIEK t.c.

Neopetromantis **gen. n.**, *australis* **sp. n.** Upper Permian, New South Wales p. 67 figs., RIEK t.c.

Permochorista belli see *Prochoristella*.

Permomerope nanus **sp. n.** Upper Permian, New South Wales p. 57 figs., RIEK Rec. Aust. Mus. **23.**

Permomeropidae **fam. n.** p. 56, RIEK t.c.

Permotanyderidae **fam. n.** p. 75 figs., RIEK t.c.

Permotanyderus **gen. n.**, *ableptus* **sp. n.** Upper Permian, New South Wales p. 75 figs., RIEK t.c.

Phipoides **gen. n.**, *elegans* **sp. n.** Upper Permian, New South Wales p. 66 figs., RIEK t.c.

Prochoristella **gen. n.**, *megaloprepia* (type) p. 71, *anagaura*, *exilis* p. 72, *pusilla*, *concinna* **spp. n.** Upper Permian, New South wales; *belli* Tilly. from *Permochorista* p. 73 figs., RIEK t.c.

Xenochorista **gen. n.**, *splendida* (type), *sobrina* **spp. n.** Upper Permian, New South Wales p. 69 figs., RIEK t.c.

Xenochoristidae **fam. n.** p. 69 figs., RIEK t.c.

Diptera.

Lithobibio **gen. n.**, *styriacus* **sp. n.** Miocene, Austria p. 133 fig., BEIER S. B. Akad. Wiss. Wien Abt. I **161** 1952.

Hemiptera.

Blattinopsis postumus **sp. n.** Lower Permian, Germany p. 242 figs., HAUPT Jb. hallesch. mitteldtsch. Erdgesch. **1** 1952.

Maguviopsis **gen. n.** (?Membracidae), *kotchnevi* **sp. n.** Tadzhikistan p. 463 fig., BEKKER-MIGDISOVA Dokl. Akad. Nauk SSSR (N.S.) **90.**

Mesohalys **gen. n.** (Pentatomidae), *münzenbergiana* **sp. n.** Miocene, Austria p. 134 fig., BEIER S. B. Akad. Wiss. Wien Abt. I **161** 1952.

Notonecta rotti **sp. n.** Upper Oligocene, Germany p. 248 figs., JORDAN Zool. Anz. **150.**

Protoprosbole **gen. n.** (Protoprosbolidae **fam. n.**), *straeleni* **sp. n.** Namurian, Belgium p. 4 figs., LAURENTIAUX Publ. Ass. Etud. Paléont. **14** 1952.

Tingiopsis **gen. n.** (Tingidae), *reticulata* **sp. n.** Tadzhikistan p. 461 fig., BEKKER-MIGDISOVA Dokl. Akad. Nauk SSSR (N.S.) **90.**

Protohemiptera.

Eugereon nervation compared with *Dictyoptilus*, systematic position discussed pp. 233–247 figs., LAURENTIAUX Bull. Soc. géol. Fr. (6) **2.**—*E. freygangi* **sp. n.** Zechstein, Germany, p. 182 fig., HAUPT Jb. hallesch. mitteldtsch. Erdgesch. **1** 1951.

Protocicadida.

Herbstiala **gen. n.** (Herbstialidae **fam. n.** p. 165), *herbsti* **sp. n.** Carbon, Germany p. 163 figs., SCHMIDT Paläont. Z. **27.**

Psocoptera.

Cyphoneura reducta see *Cyphoneurodes.*

Cyphoneurodes **gen. n.** for *Cyphoneura reducta* Carp. p. 281, BEKKER-MIGDISOVA Dokl. Akad. Nauk SSSR (N.S.) **90.**

Lophioneurodes **gen. n.**, *sarbalensis* **sp. n.** S.W. Siberia p. 280 fig., BEKKER-MIGDISOVA t.c.

Ephemeroptera.

Hexagenites weyenberghi wing nervation, systematic position discussed pp. 1–8 figs., DEMOULIN Bull. Inst. Sci. nat. Belg. **29** no. 25.

Odonata.

Libellula larvae from Miocene fresh water deposits Burgenland, Austria and Bohemia pp. 135–140 figs., BACHMAYER S. B. Akad. Wiss. Wien Abt. I **161** 1952.

Lithogomphus **gen. n.**, *münzenbergianus* **sp. n.** Miocene, Austria p. 129 fig., BEIER S. B. Akad. Wiss. Wien Abt. I **161** 1952.

Protodonata.

Triadotypus guillaumei characters p. 320, LAURENTIAUX-VIEIRA, RICOUR & LAURENTIAUX Bull. Soc. géol. Fr. (6) **2**.

Orthoptera.

Grasshoppers of Grasshopper Glacier of Montana, GURNEY 1952 Rep. Smithson. Instn (Publ. 4121): 305–326, 8 pls. 1 map.

Problem of Blattids with external ovipositor, LAURENTIAUX 1951 Ann. Paléont. **37**: 185–196, 2 pls. 4 figs.

Schesslitziella **gen. n.**, *haupti* **sp. n.** Lias, Franconia p. 164 figs., KUHN Palaeontographica (A) **101** 1952.

Blattida.

Opsiomylacris **gen. n.** (Mylacridae) p. 243, *procerus* **sp. n.** Lower Permian, Germany p. 244 figs., HAUPT Jb. hallesch. mitteldtsch. Erdgesch. **1** 1952.

Mantodea.

Archaeomantis **gen. n.**, *fleischmanni* **sp. n.** Lower Permian, Germany p. 245 figs., HAUPT Jb. hallesch. mitteldtsch. Erdgesch. **1** 1952.

Palaeodictyoptera.

Notes on Breyeriidae, LAURENTIAUX & LAURENTIAUX-VIEIRA 1952 Bull. Soc. géol. Fr. (6) **1**: 585–596, 2 pls. 5 figs.

Breyeria britannica **sp. n.** Carboniferous, England p. 586 figs., LAURENTIAUX & LAURENTIAUX-VIEIRA Bull, Soc. géol. Fr. (6) **1** 1952.

Breyeriopsis (*Borrea*) *stopai* **sp. n.** Carboniferous, France p. 589 figs., LAURENTIAUX & LAURENTIAUX-VIEIRA t.c.

Climacoptera antiqua see *Synarmoge ferrarii*.

Omoptilus hispidus identity discussed p. 120, CARPENTIER Bull. Ann. Soc. ent. Belg. **89**.

Stenodictya lobata rostrum structurally similar to that of *Eugereon böckingi* (Protohemiptera) pp. 233–247 figs., LAURENTIAUX Bull. Soc. géol. Fr. (6) **2**.

Stobbsiinae **subfam. n.** p. 591, LAURENTIAUX & LAURENTIAUX-VIEIRA Bull. Soc. géol. Fr. (6) **1** 1952.

Synarmoge ferrarii Handl. (=*Climacoptera antiqua* Laur.) in Palaeodictyoptera p. 123, LAURENTIAUX C.R. Soc. géol. Fr. **7** 1952.

ERRATA

Vol. lxii, 1925, p. 205, col. 2, for " *Bryocopia* " read " *Brycopia* "

Vol. lxiv, 1927, p. 21, No. **362**, delete " 35 figs." & insert," 137–155, 48 figs."

" " " p. 176, col. 2, 11 lines from end, for " *Cartodere* " read " *Cortodera* " & transfer to CERAMBYCIDAE

Vol. lxv, 1928, p. 208, col. 1, for " *Milichius* " read " *Milichus* "

Vol. lxvii, 1930, p. 208, col. 2, transfer " *Milichius* " to ENDOMYCHIDAE

Vol. lxviii, 1931, p. 52, No. **1018**, after " predatori " insert " XI " & for " 5 pls." read " 4 pls."

Vol. lxxiii, 1936, p. 146, No. **3112**, for " fasc. 11 " read " fasc. 4 "

Vol. lxxv, 1938, p. 304, col. 1, line 12, for " *truyilloi* " read " *trujilloi* "

Vol. lxxxiv, 1947, p. 121, No. **2519**, for " **Silverly** " read " **Siverly** " & p. 154, col. 1, 5 lines from end, for " SILVERLY " read " SIVERLY "

Vol. lxxxv, 1948, p. 266, col. 2, after " *Blepharita amicissima* " insert " **sp.n.**"

" " " p. 330, col. 1, for " *Thrips gladiolicola* " read " *Taeniothrips gladiolicola* "

Vol. lxxxvi, 1949, p. 392, col. 1, last line, for " (12) **1** " read " (12) **2** "

Vol. lxxxvii, 1950, p. 118, No. **2257**, for " ecotype " read " ecotopic " & p. 185, col. 2, line 26, for " ecotypic " read " ecotopic "

Vol. lxxxviii, 1951, p. 364, col. 1, transfer " *Ecnomus* " to PSYCHOMYIDAE

" " " p. 374, col. 1, lines 17 & 18, " *C. uralensis* " & " *erythrocephala* " should be in *Calliphora* & transferred to CALLIPHORIDAE

Vol. lxxxix, 1952, p. 13, No. **73**, for " **Asahima** " read " **Asahina** "

" " " p. 48, No. **785**, for " **Douglas** " read " **St. Quentin**, D.," & p. 221, col. 2, line 9, p. 459, col. 1, line 19, for " DOUGLAS " read " ST. QUENTIN "

" " " p. 51, No. **848**, for " pp. 207–274, 2 figs." read " pp. 267–274, 2 figs."

" " " p. 113, No. **2084**, for " **Monterde** " read " **Mouterde** " & p. 223, col. 2, line 10, p. 343, col. 2, line 22, for " MONTERDE " read " MOUTERDE "

" " " p. 219, col. 2, line 20, delete " **Lepidoptera** "

" " " p. 277, col. 1, line 21, for " KOCH t.c." read " KOCH Ent. Arb. **3**."

ERRATA (*continued*)

Vol. lxxxix, 1952, p. 422, col. 1, line 26, for " p. 49 " read " p. 48 " ; line 27, for " *chuidana* p. 50 " read " *duidana* p. 49 " ; line 13 from end, after " *Oiovelia* **gen. n.**" insert " p. 51 " & for " *ainucunumana* " read " *cunucunumana* " ; line 3 from end, for " *culehana* " read " *culebrana* "

,, ,, ,, J. N.Y. ent. Soc. Vol. **60** no. 4 was published in 1953. This affects the following entries :

p. 10, No. **25**, & p. 384 (*Hexatoma*), p. 385 (*Molophilus*), p. 386 (*Teucholabis*) ; p. 16, No. **132**, & p. 413 (*Pachybrachius*) ; p. 23, No. **296** ; p. 60, No. **1031** ; p. 179, col. 1, line 4, col. 2, line 17.

,, ,, ,, Mem. Soc. cubana Hist. nat. **21** no. 2 was published in 1953. This affects the following entries :

p. 315 (*Anoplitis*, *Sceloenopla*)

,, ,, ,, Psyche **59** no. 3 was published in 1953. This affects the following entries :

p. 37, No. **559**, & p. 375 (*Neopanorpa*) ; p. 44, No. **696**, & p. 237 (*Brachyonychus*) ; p. 49, No. **803**, & p. 421 (*Oiosalda*) ; p. 55, No. **921**, & p. 413 (*Corythucha*) ; p. 170, No. **3206**, & p. 328 (*Myrmica*, *Pogonomyrmex*) ; p. 329 (*Typhlomyrmex*).